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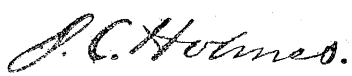

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TRANSACTIONS

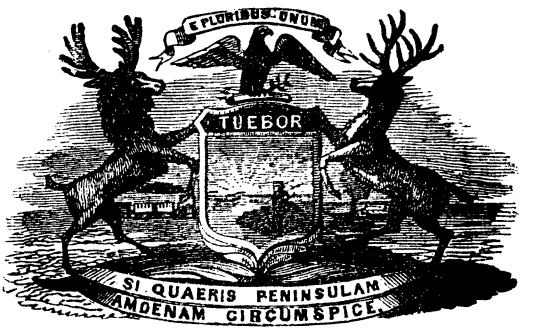
OF THE

STATE AGRICULTURAL SOCIETY:

WITH REPORTS OF

COUNTY AGRICULTURAL SOCIETIES,

FOR 1854.



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VOL. VI.

J. C. HOLMES,
SECRETARY OF THE MICHIGAN STATE AGRICULTURAL SOCIETY.
OFFICE IN DETROIT.

LANSING:
HOSMER & FITCH, PRINTERS TO THE STATE.

1855.

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OFFICERS FOR 1855.

PRESIDENT.

ANDREW Y. MOORE, Schoolcraft.

EXECUTIVE COMMITTEE.

JOHN STARKWEATHER, Ypsilanti,
JUSTUS GAGE, Dowagiac,
JOHN L. BUTTERFIELD, Brooklyn,
JAMES BAYLEY, Troy,
S. M. BARTLETT, Lasalle,
J. W. DICKINSON, Hillsdale,
P. K. LEACH, Utica,
HENRY METZ, Detroit,
CHARLES DICKEY, Marshall.

TREASURER.

H. H. BROWN, Detroit.

SECRETARY.

J. C. HOLMES, Detroit.

The Society's rooms are in Cooper's building, on the south side of Jefferson Avenue, between Griswold and Shelby streets, Detroit.

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ANNUAL REPORT

OF THE

MICHIGAN STATE AGRICULTURAL SOCIETY FOR 1854.

OFFICE OF THE MICH. STATE AGRICULTURAL SOCIETY,
Detroit, June 27th, 1855.

To the Secretary of State:

SIR—I have the honor herewith to transmit to you the Sixth Annual Report of the Michigan State Agricultural Society.

Very respectfully,

J. C. HOLMES,

Sec'y Mich. State Agricultural Society.

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LEGISLATIVE ENACTMENTS.

AN ACT to amend an act entitled "an act for the encouragement of Agriculture, Manufactures, and the Mechanic Arts," approved March 16th, 1849.

SECTION 1. *The People of the State of Michigan enact*, That section one of an act for the encouragement of agriculture, manufactures, and mechanic arts, be so amended as to read as follows:

"Section 1. In any county in this State, where the inhabitants thereof have organized and established, or may hereafter organize and establish a society for the encouragement and advancement of agriculture, manufactures, and the mechanic arts, and shall raise from said society annually the sum of one hundred dollars or over, for the promotion of the above objects, in said county, which fact shall be certified by the President and Secretary of the society, under oath, and a certificate thereof shall be filed with the Clerk of the Board of Supervisors. The Board of Supervisors of said county, at their annual session in each and every year, are hereby required to levy a tax of not less than one-fortieth, nor more than one-tenth of one mill on the dollar, on the assessment roll of the county, which tax shall be collected and paid to the treasurer of the county, in the same manner that other taxes are collected and paid."

Approved February 6, 1855.

AN ACT to authorize the formation of County and Town Agricultural Societies.

SECTION 1. *The People of the State of Michigan enact*, That any ten or more persons, inhabitants of this State, who shall desire to form

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a town or county agricultural or horticultural society, in any county, town, city or village of this State, may make, sign and acknowledge, duplicate articles of association, before any officer authorized to take acknowledgments of deeds in this State, and file the same in the office of the Secretary of the State Society, and also in the office of the county clerk of the county in which the business of the society is to be conducted; in which articles shall be stated the name by which such society shall be known in law, the particular business and objects of such society, the number of trustees, directors or managers who shall manage the same, and the names of such directors, trustees, or managers thereof, for the first year of its existence.

Sec. 2. Upon filing such articles of association as aforesaid, the persons who shall have signed the same, and their associates and successors, shall thereupon, and by virtue of this act, become a body politic and corporate, by the name stated in such articles: *Provided*, No two societies shall assume the same name; and by that name they and their successors shall and may have succession, and shall be persons in law capable of suing and being sued; and they and their successors may have and use a common seal, and the same may alter and change at pleasure; and they and their successors, by their corporate name, shall in law be capable of taking and receiving, purchasing and holding real estate for the purpose of their incorporation, but for no other purpose, to an amount not exceeding the sum of twenty-five thousand dollars in value, if a county society, and ten thousand dollars if a town, village or city society, and of personal estate for a like purpose, to an amount not exceeding ten thousand dollars, if a county society, and five thousand dollars, if a town, village or city society; and may make all necessary by-laws for the management of said society, not inconsistent with the laws of this State or of the United States.

Sec. 3. Any person who shall pay into the treasury of said society, annually, in such time and manner as the by-laws thereof shall direct, a sum of money, not less than fifty cents nor more than one dollar, and subscribe to the articles of association, shall be a stockholder therein, and entitled to all the privileges and immunities thereof.

Sec. 4. The officers of said society shall consist of a president, a secretary and treasurer, and at least five directors, and they shall be elected annually by the stockholders of said society; and said officers shall con-

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stitute a board for the management of the concerns of said society, a majority whereof shall be a quorum; and it shall be the duty of said officers so to manage the property and concerns of said society, as will best promote the interests of agriculture, horticulture and mechanic arts; and they may hold fairs and exhibitions, and may distribute premiums for the best and most meritorious animals or articles exhibited in these several departments, as shall be by their by-laws and regulations provided.

Sec. 5. There shall be but one county society in any one county of this State, nor shall there be more than one town society in any one town, village or city, but two, three or four towns may join and organize a town society for such towns.

Sec. 6. The said society may, in case the uses and convenience thereof so require, upon application to the circuit court of the county where such society is organized and located, obtain and have authority to sell, from time to time, the whole or any part of its real estate, the granting of such authority to be in the discretion of the court, and such application to be made only when authorized by said society, at an annual meeting thereof, by a vote of not less than two-thirds of the members of such society, present at such meeting, and notice of the intention to vote for such application having been published in some newspaper published in said county, if there be one published, and if not, then in some newspaper published in an adjoining county, once a week for three months next preceding such annual meeting.

Sec. 7. The stockholders of all corporations organized under this act, shall be individually liable for all labor performed for such corporation or association.

Sec. 8. The president, secretary and treasurer of said society, shall, on or before the twentieth day of December in each year, make out and transmit to the Secretary of the State Agricultural Society, at his office, a statement of the transactions of said society for the preceding year, and giving a full detail of the receipts and expenditures thereof, with a list of the premiums awarded, and to whom and for what purpose.

Sec. 9. This act shall be subject to the provisions of chapter fifty-five, title ten of the revised statutes of eighteen hundred and forty-six, so far as applicable to associations formed under this act.

Sec. 10. This act shall take effect immediately.

Approved February 12, 1855.

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AN ACT making an appropriation to aid the Michigan State Agricultural Society.

SECTION 1. *The People of the State of Michigan enact,* That there be and is hereby appropriated out of the Treasury of this State, the sum of two thousand dollars each year, for the years eighteen hundred and fifty-five, and eighteen hundred and fifty-six, to the Michigan State Agricultural Society, for the payment of premiums, to be paid by the State Treasurer to the Treasurer of said Society, on the warrant of the Auditor General: *Provided,* That the Treasury [Treasurer] of said Society shall, on or before the 15th day of October in each year, make, subscribe and deposit with the Auditor General, his affidavit, that said Society has raised for the year a like sum of two thousand dollars, by voluntary subscriptions and fees of membership.

Approved February 12, 1855.

AN ACT for the establishment of a State Agricultural School.

SECTION 1. *The People of the State of Michigan enact,* That the President and Executive Committee of the Michigan State Agricultural Society, be and are hereby authorized to select, subject to the approval of the State Board of Education, a location and site for a State Agricultural School, within ten miles of Lansing; and subject to such approval, contract for and purchase for the State of Michigan, such lands, not less than five hundred acres, nor more than one thousand acres, in one body, for the purpose of an experimental farm and site for such Agricultural School: *Provided,* That the amount to be paid for such farm and site shall not exceed fifteen dollars per acre, and that the conveyance or conveyances be made to the State of Michigan.

Sec. 2. There is hereby appropriated twenty-two sections of salt spring lands, or the money arising from the sale thereof, referred to in article 13, section 11, of the constitution of the State of Michigan, for the purchase of land for such site and location, and the preparation thereof, the erection of buildings, the purchase of furniture, apparatus, library and implements, payment of professors and teachers, and such other necessary expenses to be incurred in the establishment and successful operation of said school.

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Sec. 3. Upon the execution and delivery to the Secretary of State of the proper conveyance or conveyances of the land, the purchase of which is provided for in the first section of this act, and the certificate of the Attorney General that he has examined the title to the same, and finds it unencumbered, and that the conveyance or conveyances are executed in due form, and a certificate from the President and Secretary of the Board of Education, that the same is in accordance with the contract or contracts for the purchase of the same, and that the location has been approved by them, the Auditor General shall draw his warrant or warrants on the State Treasurer for the amount of snch purchase, in favor of the party or parties to whom such sum or sums shall be due, payable out of said salt spring lands, or money accruing from the sale of the same; and the said certificates in this section mentioned, shall be filed and preserved in the office of the Secretary of State.

Sec. 4. Upon the purchase of such location and site, there shall be established on such site, under the direction and supervision of the State Board of Education, an Agricultural School, by the name and style of the Agricultural College of the State of Michigan, and the chief purpose and design of which, shall be to improve and teach the science and practice of agriculture.

Sec. 5. The course of instruction in said college shall include the following branches of education, viz: an English and scientific course, natural philosophy, chemistry, botany, animal and vegetable anatomy and physiology, geology, mineralogy, meteorology, entomology, veterinary art, mensuration, leveling and political economy, with book-keeping and the mechanic arts which are directly connected with agriculture, and such others as the Board of Education may from time to time see fit to prescribe, having reference to the objects specified in the previous section; and the said board may establish such professorships, and employ such professors and teachers, to be called the Board of Instruction of said college, for the instruction aforesaid, as they may judge best for such object: *Provided*, The sum paid such professors and teachers for the first year after said college shall go into operation, shall not exceed the sum of five thousand dollars, and for the next year, not exceeding the sum of six thousand dollars, and for any years thereafter, such a sum as the State Board of Education may deem necessary, for the successful operation of the institution. Tuition in said institution shall be

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forever free to pupils from this State, and any number of pupils may be admitted who shall apply from any part of this State: *Provided*, That in case more pupils apply than can be accommodated or taught, then said board shall adopt some equitable plan, giving to each county a number according to the ratio of population, as it shall appear from the census last taken; and in that case, those from each county shall be admitted in the order in which they shall apply, until the quota of such county be full.

Sec. 6. There shall be two scholastic terms in each year, the first term commencing on the first Wednesday in April, and ending on the last Wednesday in October, the second term commencing the first Wednesday in December, and ending on the last Wednesday in February; and no pupil shall be received for less than one term, unless by special permission from the Board of Instruction.

Sec. 7. The Board of Education, upon consultation with the Board of Instruction, shall, from time to time, fix and establish rules as to the number of hours which shall be devoted to manual labor and to study, which may be different in different terms or seasons; but during the first term in such year, the time devoted to labor shall not be less than three nor more than four hours each day; and no student or pupil of said college shall be exempt from such labor, except in case of sickness or other infirmity.

Sec. 8. The Board of Education shall appoint one of the professors in said college to be the president thereof, and one to be its secretary, and one to be its treasurer; and the Board of Instruction may establish such rules and regulations from time to time, for the government of said college and instruction therein, as they may deem proper in any matter not regulated by the Board of Education; and the rules and regulations adopted by such Board of Instruction, shall remain in full force until altered by said Board of Education. And said Board of Instruction shall have power, subject to the approval of the Board of Education, to establish by-laws for the government and discipline of the pupils of said college, in regard to conduct and behavior, and to affix such pecuniary penalties as they may deem proper, and to prescribe the causes for expulsion or dismissal of any such pupil, which by-laws shall have the force of law, unless altered, modified or repealed by the Board of Education or the Legislature; and the Board of Education shall fix

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the compensation to be credited or paid for the labor performed by pupils, under the provisions of section seven of this act.

Sec. 9. The president of said Board of Instruction shall preside at all meetings of said board, except in cases of sickness or absence; in which case the board may elect one of their number president *pro tempore;* and it shall be the duty of the president to see that all the regulations established by this act by the Board of Education and by the Board of Instruction, in regard to the government and instruction in said college, be enforced.

Sec. 10. The secretary of said Board of Instruction shall record all the proceedings of said board, and all regulations and by-laws for the government of said college, and shall publish the same, and furnish a copy thereof to the Governor of this State, to each member of the Board of Education, to the county clerk of each county, and to the clerk of each organized township in this State. He shall also keep a full record of all improvements and experiments made on said lands, their cost and results. He shall also keep a careful account with each field, in connection with a plan of the farming lands or farm, exhibiting the position of each, in which shall be shown the manner and cost of preparing the ground, the kind of crop, time of planting or sowing, the after condition, the time and manner of harvesting, the labor devoted to each process, and its cost price, with the cost of preparing the matured crop, for market, and the price for which it was sold, and of such other matters as the Board of Education and of Instruction, or either of them, may require of him; and he shall furnish a copy thereof at the end of each term to the president of the Board of Education; and the said record shall, at all reasonable hours, be open to the inspection of any citizen of this State.

Sec. 11. The treasurer shall receive and keep all moneys arising from the sale of products of the farm, and from fines and penalties that may be imposed; and shall give bonds in such sum as the Board of Education may require. He shall pay over all moneys upon the warrant of the president, countersigned by the secretary, on account of such contingent expenses of the institution as may arise. He shall render annually, in the month of December, to the Board of Education, and as often as required by said board, a full and true account of all moneys received and disbursed by him; stating for what received and paid, and

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shall produce vouchers for such payments. The surplus money, if any remain in his hands at the time of rendering such account, shall, if required by said board, be paid over to the State Treasurer, to be placed to the credit of said institution.

Sec. 12. After said college shall have commenced its first term, the Superintendent of Public Instruction shall appoint visitors for the same, who shall perform the like duties required of such visitors by law, in reference to the State Normal School.

Sec. 13. This act shall take effect immediately.

Approved February 12, 1855.

AN ACT to prevent the wrongful taking, detaching from the ground, or injuring any fruit tree, shade tree, ornamental shrub, plant, vine, or vegetable.

SECTION 1. *The People of the State of Michigan enact*, That any person who shall wrongfully take and carry away from any place, any fruit tree, ornamental tree, shade tree, ornamental shrub, or any plant, vine, bush or vegetable, there growing, standing or being, with intent to deprive the owner thereof; or who shall without right and with wrongful intent, detach from the ground or injure any fruit tree, ornamental tree, shade tree, ornamental shrub, or any plant, vine, bush or vegetable, shall be guilty of a misdemeanor, and on conviction thereof be punished by imprisonment in the county jail not more than six months, or by fine not exceeding two hundred and fifty dollars, or by both such fine and imprisonment, in the discretion of the court.

Approved February 14, 1855.

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NAMES OF THE OFFICERS

OF THE

MICHIGAN STATE AGRICULTURAL SOCIETY FOR 1854.

President—GEORGE C. MUNROE, Jonesville, Hillsdale County.
Treasurer—H. H. BROWN, Detroit.
Secretary—J. C. HOLMES, Detroit.

EXECUTIVE COMMITTEE.

Names.	*Post Office.*	*County.*
Jay R. Monroe,	Paw Paw,	Van Buren.
Samuel M. Bartlett,	Lasalle,	Monroe.
John Starkweather,	Ypsilanti,	Washtenaw.
C. W. Green,	Farmington,	Oakland.
G. V. N. Lothrop,	Detroit,	Wayne.
John Miller,	Adrian,	Lenawee.
A. Y. Moore,	Schoolcraft,	Kalamazoo.
Payne K. Leach,	Utica,	Macomb.
Chas. Dickey,	Marshall,	Calhoun.
Thos. Clark,	Lapeer,	Lapeer.

VICE PRESIDENTS.

Names.	*Post Office.*	*County.*
John R. Kellogg,	Allegan,	Allegan.
John Bowne,	Hickory Corners,	Barry.
L. D. Crippin,	Coldwater,	Branch.
A. McMath,	Niles,	Berrien.

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George Hentig,	Marshall,	Calhoun.
Justus Gage,	Dowagiac,	Cass.
Samuel Ashman,	Saut Ste Marie,	Chippewa.
David Sturgis,	Dewitt,	Clinton.
Reuben Fitzgerald,	Bellevue,	Eaton.
L. W. Beecher,	Genesee,	Genesee.
Wm. T. Howell,	Jonesville,	Hillsdale.
Cyrus Lovell,	Ionia,	Ionia.
George W. Peck,	Lansing,	Ingham.
John L. Butterfield,	Jackson,	Jackson.
Chas. E. Stuart,	Kalamazoo,	Kalamazoo.
Rix Robinson,	Ada,	Kent.
Robt. Ferguson,	Dryden,	Lapeer.
Stephen Allen,	Adrian,	Lenawee.
Freeman Webb, Jr.,	Pinkney,	Livingston.
Michael Dousman,	Mackinaw,	Mackinaw.
J. Summers,	Utica,	Macomb.
A. G. Bates,	Monroe,	Monroe.
Linus Cone,	Troy,	Oakland.
Henry Pennoyer,	Grand Haven,	Ottawa.
H. S. Miller,	Saginaw,	Saginaw.
D. Northrop,	Port Huron,	St. Clair,
E. S. Moore,	Three Rivers,	St. Joseph,
L. B. Martin,	Shiawassee,	Shiawassee.
D. M. Uhl,	Ypsilanti,	Washtenaw.
Titus Dort,	Dearborn,	Wayne.
J. H. Simmons,	Paw Paw,	Van Buren.

CORRESPONDING SECRETARIES.

Names.	*Post Office.*	*County.*
Elisha Ely,	Allegan,	Allegan.
N. Barlow, Jr.,	Hastings,	Barry.
Thos. Love,	Berrien,	Berrien.
E. B. Pond,	Coldwater,	Branch.
O. C. Comstock, Jr.,	Marshall,	Calhoun.
John Collins,	Summerville,	Cass.
S. McKnight,	Saut Ste Marie,	Chippewa.
J. F. Turner,	Dewitt,	Clinton.

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W. R. Martin,	Vermontville,	Eaton.
R. B. Perry,	Grand Blanc,	Genesee.
J. McCollum,	Hillsdale,	Hillsdale.
C. P. Bush,	Lansing,	Ingham.
Frederick Hall,	Ionia,	Ionia.
J. C. Watkins,	Grass Lake,	Jackson.
F. W. Curtenius,	Kalamazoo,	Kalamazoo.
Henry Seymour,	Grand Rapids,	Kent.
George Clark, Jr.,	Lapeer,	Lapeer.
A. G. Eastman,	Adrian,	Lenawee.
W. A. Buckley,	Howell,	Livingston.
L. Y. B. Birchard,	Mackinaw,	Mackinaw.
Ira H. Butterfield,	Utica,	Macomb.
E. G. Morton,	Monroe,	Monroe.
A. C. Walker,	Farmington,	Oakland.
Thos. J. White,	Grand Haven,	Ottawa.
W. L. P. Little,	Saginaw,	Saginaw.
Chas. A. Loomis,	St. Clair,	St. Clair.
Mark H. Wakeman,	Nottawa,	St. Joseph.
James Cummins,	Corunna,	Shiawassee.
W. H. Harrison,	Paw Paw,	Van Buren.
L. Davis,	Ann Arbor,	Washtenaw.
Abram Fisher,	Redford,	Wayne.

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EXECUTIVE MEETING.

The Annual Meeting of the Executive Committee was held at the Society's rooms in Detroit, commencing on Tuesday, the 13th day of December, 1853.

The following gentlemen were present:

The President, George C. Munroe.

Executive Committee, Jay R. Munroe, S. M. Bartlett, John Starkweather, C. W. Green, G. V. N. Lothrop, A. Y. Moore, Payne K. Leach, Chas. Dickey, Thomas Clark.

After the reading of the minutes of the previous Annual Meeting of the Executive Committee, the Secretary read his report for the year, of which the following is a synopsis:

On the 7th day of June last, the business committee issued a circular proposing a trial of the various reapers and mowers now in use; in reply to which several of the patentees and venders of reapers stated that they were preparing to attend such a trial either in the State of New York or Ohio; they could attend but one trial, and wishing to accompany their machines in person they could not be present at the proposed meeting for that purpose in this State. In consequence of this, the committee published a second circular on the 27th of June, announcing that there would be no trial of reapers and mowers in this State the present year.

A petition was forwarded to the Superintendent of each of the railroads, praying them to permit the transportation of plaster free of charge, and that the price of transportation on agricultural implements may be reduced to the lowest point compatible with the mutual interests of the corporations and the agricultural community. No answer was returned except an acknowledgment of the receipt of the petition.

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A memorial was presented to the Legislature, asking for an appropriation of one thousand dollars each year, for the years 1853 and 1854; also for an appropriation to defray the expense of printing the transactions of the Society annually, which was granted.

Messrs. Dort, Shoemaker and Moore, urged upon the Legislature the resolution relating to the establishment of an Agricultural School, but without success. A course of agricultural lectures was delivered last spring at the University, and another course is now in progress at that place.

Professor Welch, of the Normal School at Ypsilanti, gives assurance that all that can be done by that institution for the dissemination of scientific and theoretical agricultural knowledge, shall be accomplished.

A sketch of the business that would come before the committee was presented, when,

On motion,

The committee adjourned to 6½ o'clock P. M.

TUESDAY, 6½ P. M.

The committee again convened, when,

On motion of Mr. Starkweather, it was

Resolved, That the several committees mentioned by the Secretary in his report be now appointed.

Whereupon, the following committees were appointed by the President:

Premium List—A. Y. Moore, J. Starkweather, P. K. Leach.

Rules and Regulations—C. W. Green, J. Miller, Thomas Clark.

Treasurer's Account—G. V. N. Lothrop, Chas. Dickey, S. M. Bartlett.

Business Committee—G. V. N. Lothrop, J. Starkweather, Chas. Dickey, and the Secretary.

Field Crops—J. R. Monroe, Thomas Clark, C. W. Green.

Awards to Counties—S. M. Bartlett, A. Y. Moore, J. Miller.

Reports on Farms—P. K. Leach, T. Clark, C. Dickey.

Potato Rot—S. M. Bartlett, J. R. Monroe, A. Y. Moore.

On motion of Mr. A. Y. Moore,

Resolved, That the sum of $4,500 be appropriated for the payment of premiums for the Sixth Annual Fair.

On motion of Mr. Green,

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Resolved, That we hold the Fair four days.

On motion of Mr. Green,

Resolved, That the Sixth Annual Fair be held on Tuesday, Wednesday, Thursday and Friday, the 26th, 27th, 28th, and 29th days of September, 1854.

On motion, the committee adjourned to 9 A. M. of the 14th.

WEDNESDAY, Dec. 14, 9 A. M.

The President and all the members of the committee were present except Mr. J. Miller, of Adrian. Several members of the society, from the interior of the State, were also present.

On motion of Mr. Moore,

Resolved, That the society hold its sixth annual fair at Detroit, provided the citizens thereof secure to the society, by the 1st day of May next, the sum of $1,500; if not so secured, then at such place on the line of either of the railroads as shall raise the largest sum.

Mr. Shearer made a statement respecting Mr. Robert's mode of raising potatoes, and his theory respecting the rot and its cure.

On motion, the whole matter respecting the potato rot was referred to the appropriate committee.

On motion of Mr. J. Starkweather,

Resolved, That the Hon. Thos. H. Benton, of St. Louis, Missouri, be invited to deliver the annual address before the society at its sixth fair.

The sub-committees then separated to attend to the duties of their several appointments.

WEDNESDAY, 2 P. M.

The committee met, and each sub-committee continued its separate work.

WEDNESDAY, 7 P. M.

The committee met, and, after some conversation on agricultural subjects, adjourned for the purpose of accepting the hospitalities tendered by Mr. G. V. N. Lothrop.

THURSDAY, 2½ P. M.

Committee convened, and Committee on Premium List made their report, which was accepted.

On motion of Mr. Bartlett,

Resolved, That a committee of three be appointed from the executive

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committee to examine such farms as may be entered for premiums, the expenses to be paid by the society.

The following committee was appointed:—Messrs. S. M. Bartlett, A. Y. Moore, and C. W. Green.

The premium list was then adopted.

The report of the committee on rules and regulations was received, accepted and adopted.

On motion, it was

Resolved, That each viewing committee shall consist of five members, and that three shall make a quorum.

On motion of Mr. Green,

Resolved, That any person wishing to enter his farm to compete for the premiums offered, he must make application to the Secretary by the 15th day of June.

On motion of Mr. Lothrop,

Resolved, That this committee have learned with much gratification, of the lively interest in the cause of agriculture which has been manifested by the officers of the University of Michigan, and of the State Normal School; and we take this opportunity to tender our thanks for the efforts which they have already made to advance and increase the means of agricultural education.

Resolved, That the Secretary communicate a copy of the above resolution to the President of the University and to the Principal of the Normal School.

On motion of Mr. Green,

Resolved, That the Executive Committee meet at Ann Arbor on Wednesday, the 25th January, for the purpose of visiting the University and the Normal School.

On motion of Mr. Dickey,

Resolved, That the present Board of Agriculture for this State, now consisting of the Rev. Charles Fox, of Grosse Isle, Andrew Y. Moore, Esq., of Schoolcraft, and Jona. Shearer, Esq., of Plymouth, appointed for the purpose of reporting to the United States Agricultural Society, be continued for the ensuing year.

On motion,

Resolved, That three delegates be appointed to attend the next annual Fair of each of the following State Societies:

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New York—Messrs. Lothrop, Dickey and Green.

Ohio—Messrs. Moore, Starkweather and Dickey.

Illinois—Messrs. Starkweather, Miller and Bartlett.

Indiana—Messrs. J. R. Monroe, Clark and Lothrop.

Pennsylvania—Messrs. Bartlett, Leach and Moore.

On motion of Mr. Starkweather,

Resolved, That the Society award to H. H. Brown, Esq., a silver medal and diploma for the faithful performance of his duties as Treasurer of the Society. Also, a medal to Wareham S. Brown, for his valuable services as Assistant Treasurer.

On motion of Mr. Green,

Resolved, That the committee tender their thanks to the President and Secretary for the faithful performance of their duties during the sitting of the Board.

On motion, the committee adjourned *sine die*.

VISIT OF THE EXECUTIVE COMMITTEE TO THE UNIVERSITY OF MICHIGAN AND THE STATE NORMAL SCHOOL.

In pursuance of a resolution of the Executive Committee, adopted at its Annual Meeting, December 13th, 1853, the Executive Committee convened at Ann Arbor, on Wednesday morning, January 25th.

Present, Jay R. Monroe, Paw Paw; S. M. Bartlett, Lasalle; John Starkweather, Ypsilanti; C. W. Green, Farmington; A. Y. Moore, Schoolcraft; P. K. Leach, Utica; Chas. Dickey, Marshall; J. C. Holmes, Detroit.

The President being absent, Mr. Jay R. Monroe was called to the chair.

The object of the meeting having been stated by Mr. Green, it was,

On motion of Mr. Starkweather,

Resolved, That a committee of three be appointed to report to the Society the proceedings of this meeting.

Whereupon, the following gentlemen were appointed as this committee:

Messrs. Starkweather, Moore and Bartlett.

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After visiting the two institutions, an account of which will be found in the following report of the committee, the Executive Committee adjourned *sine die.*

REPORT OF THE COMMITTEE.

Your committee to whom was assigned the duties of reporting the result of their visit and observations at the University in Ann Arbor, and the Normal School in Ypsilanti, which was in accordance with a resolution adopted at their Annual Meeting in December last, would most respectfully report to the Michigan State Agricultural Society, that we met in the city of Ann Arbor, on the 25th day of January, inst.

The object of our meeting was briefly stated by Mr. Green, of Oakland county, in substance as follows: That we have come here for the purpose of visiting the University and the Normal School, and to ascertain the measures adopted by these institutions in teaching agricultural science.

The committee then called on President Tappan, in the Library of the University, and were informed by this gentleman that a course of lectures was then in progress, delivered by Rev. Charles Fox, of Grosse Isle, embracing all subjects connected with practical and scientific agriculture. He also informed us that Doct. Douglass, in his course of lectures on chemistry, dwelt fully upon the application of this science to the mechanic arts, and to practical and scientific agriculture. President Tappan, accompanied by Professors Williams, Sager, Fasquelle, Haven and Fox, very courteously conducted us through the museum of the University. Here we saw much to gratify curiosity and interest the mind. Many specimens bore the stamp of the lamented Houghton. We were informed that valuable information in manuscript, relating to our Upper Peninsula, properly belonging to the State, was yet in the hands of his executors.

At half-past two o'clock P. M., in company with Prof. Fox, we visited the Medical Department for the purpose of listening to a lecture on Chemistry, delivered by Prof. Douglass; Subject, "Burning Gasses." We can speak of this lecture in high tones of praise; every experiment was perfect, and every word conveyed its proper meaning. Doct. Douglass conducted us through the museum and lecture rooms, where we saw much that was instructive, and which lent a moral in our progress in the high and important duties of life. At half-past three o'clock

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we attended a lecture delivered by Professor Fox; Subject, "Rotation of Crops, Drainage, &c." He also gave a synopsis of his preceding lectures, with all of which we were highly pleased; this being more directly connected with our occupation and object. Here we cannot avoid this favorable opportunity to express our views regarding the importance of continuing these lectures, until our Legislature shall provide more liberal and extended facilities for agricultural education. An appropriation for this purpose is indispensable to their long continuance.

Your committee deem a model and experimental farm an object of great necessity, where the practical as well as the scientific branches can be taught. Indeed, we regard an acquaintance with the practical duties of the farm indispensable to any one who intends to make agriculture his profession. It will be to him the same as practice is to the Artizan and Mechanic, and neither of the sciences can be effectually taught solely by lectures and illustrations in the lecture room and Laboratory.

Your committee, entertaining these views of the subject, would respectfully suggest the propriety of petitioning our Legislature at its next session for an appropriation of moneys arising from the sales of Swamp Lands, sufficient for the purchase of a farm, where practical and scientific agricultural education will be taught on a scale corresponding with our increasing wants and growing State.

Your committee proceeded, on the morning of the twenty-sixth, to visit the Normal School at Ypsilanti, which is situated on a beautiful rise of ground on the west side of the river, and overlooking the village. We were met in the ante-room by Professor Welch, principal of the institution, who very kindly invited us to listen to a lecture to be delivered by Professor Fiske; Subject, "Organic and Inorganic Nature of the Soils, and the production of vegetable matter by the mechanical operation of Agriculture, including manuring, draining, plowing, and the proper pulverizations of the soil." The lecture was delivered in a happy style and comprehensive manner. We were forcibly impressed with the precise order and regularity observed in this school, which appeared mutual between instructor and pupil. Indeed, we never saw system, order and economy, more fully developed in any of the relations of life. The cleanliness and neat appearance of the whole interior indicated a new era in the art of governing in the school-room. Everything bore the same expression of neatness as when the keys were re-

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ceived from the hands of the builders, though nearly two years have elapsed since this event occurred. The teaching of Agricultural Science in this institution will be felt to a greater or less degree in almost every school district throughout our State, but we do not think the information to be derivéd from these sources is sufficient to constitute the education of a professional and practical farmer.

All of which is respectfully submitted.

J. STARKWEATHER,
A. Y. MOORE,
S. M. BARTLETT.

January 26th, 1854.

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THE SIXTH ANNUAL FAIR.

The Sixth Annual Fair was held at Detroit, on the Jones and Cass farms, on Tuesday, Wednesday, Thursday and Friday, September 26th, 27th, 28th and 29th, 1854.

The entries of Cattle, Horses and Poultry, exceeded that of last year. The Sheep were fewer in number than heretofore, but there was a decided improvement in quality.

There were but few Native Sheep on the ground. The greater part of those exhibited were fine specimens of French Merino, Spanish do., South Down, and Leicester. Some Grade, and some cross of blood Sheep, were also exhibited. The show of Swine was very creditable.

On Monday, the 25th, several entries were made, and stock and articles began to arrive upon the ground. On Tuesday, the 26th, the Clerks were kept very busy in making entries and selling membership tickets. Wednesday, the 27th, on account of the arrival of stock and articles during the night of the 26th, intended for exhibition, the books were kept open until 9 o'clock A. M. The several committees received their books and commenced their examinations at noon. The weather was very mild and pleasant until about 4 o'clock P. M. of Thursday; at that hour an unusually heavy squall of wind and rain passed over the city, deluging the Fair Ground, and causing the numerous visitors to seek shelter where best they could. At 5 o'clock P. M., the wet and weary multitude finding that the wind had ceased to blow, and the rain to fall, and that the waters had subsided, began to emerge from their precarious shelters and seek their lodging places.

Thursday, 28th, clear and very pleasant; the several committees continuing their examinations. At 2 o'clock P. M., a very able and interesting address was delivered by Bela Hubbard, Esq., of Detroit. Du-

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ring the afternoon there was an immense throng of visitors upon the ground.

Friday, 29th, the committees having prepared their reports, the reading of them was commenced at 10 o'clock. At 1 o'clock, his Honor, the Mayor of Detroit, O. M. Hyde, in company with many citizens, escorted to the ground Lord Elgin, Governor General of Canada, and suite. After an examination of the stock and articles upon the ground, Lord Elgin was received upon the Speaker's stand by G. V. N. Lothrop, Esq., and by him introduced to the members of the Society. Upon being welcomed by Mr. Lothrop and the Society, Lord Elgin made a few happy and appropriate remarks and then retired from the ground. At 2 o'clock P. M., the meeting for the election of officers for the ensuing year took place at the Speaker's stand, the President, George C. Munro, presiding.

The following officers were elected:

President—ANDREW Y. MOORE, Schoolcraft, Kalamazoo county.

Treasurer—H. H. BROWN, Detroit, Wayne county.

Secretary—J. C. HOLMES, Detroit, Wayne county.

Executive Committee—John Starkweather, Yypsilanti, Washtenaw county; Henry Metz, Detroit, Wayne county; Justus Gage, Dowagiac, Cass county; Charles Dickey, Marshall, Calhoun county; John Miller, Adrian, Lenawee county; John L. Butterfield, Brooklyn, Jackson county; Payne K. Leach, Utica, Macomb county; James Bailey, Big Beaver, Oakland county; S. M. Bartlett, Lasalle, Monroe county; J. W. Dickinson, Hillsdale, Hillsdale county.

On motion of John Starkweather,

Resolved, That a committee of three be appointed to draft resolutions relative to the death of Prof. Charles Fox.

Messrs. J. Starkweather, R. F. Johnstone and A. Y. Moore were appointed said committee.

The above-named committee reported the following preamble and resolutions, which were adopted:

Whereas, the overruling Providence who guides, governs and guards the destinies of the human race, in His infinite wisdom, since the last annual meeting of the Michigan State Agricultural Society, has withdrawn the Reverend Charles Fox, of Grosse Isle, from his place as one of its useful and energetic members, and taken him from that high and

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noble career in which he labored with a devoted and unselfish zeal, which had won the respect and esteem of the friends of agriculture in our State;

And whereas, the society esteem it a high duty to mark their appreciation of the generous zeal which prompted the late Charles Fox to devote his time, talents and fortune to the advancement of agricultural education in this State, by paying a proper tribute to his memory, therefore,

Resolved, That while bowing as humble Christians to the dispensation which has taken from amongst us, in the prime of his usefulness and the vigor of his manhood, our fellow member, the Rev. Charles Fox, we most deeply deplore in his death the loss of a sincere and active friend of the interests and progress of this society; and also of a devoted, earnest and faithful advocate of agricultural education and improvements.

Resolved, That as citizens we regret that high and inscrutable decree which cut off at an early age one who gave such promise of future usefulness as a member of our community, by the aid which he generously gave to education, and by the services which he rendered the State, by pointing out and helping to develop her resources by watching, encouraging and gratifying the increasing desire which prevails for instruction in the sciences which tend to promote and advance a correct knowledge of agriculture.

Resolved, That the members of this society tender to the family of the late Rev. Charles Fox, their sincere sympathies in the bereavement which has deprived them of an honorable head, and which has caused them to bewail the irretrievable loss of their most cherished friend and protector.

Resolved, That the president and secretary of this society prepare and transmit to the relict of the deceased, a copy of this preamble and resolutions, as a mark of the esteem in which he was held when living, and of the respect entertained for his memory by the members of the Agricultural Society of the State of Michigan.

J. STARKWEATHER,
R. F. JOHNSTONE,
A. Y. MOORE,

Committee.

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On motion,

Resolved, That the lumber belonging to this society be sold at auction or otherwise, under the direction of Jonas H. Titus, and that he report to the treasurer.

On motion of A. Y. Moore,

Resolved, That the annual meeting of the executive committee be held at Detroit, on Tuesday, December 12th, 1854.

Resolved, That a vote of thanks be tendered to J. C. Holmes, Secretary of the State Agricultural Society, for his very efficient services, and the able manner in which the whole arrangement of the Fair Ground has been perfected; also, for his faithful services in the cause of Agriculture and its kindred arts.

On motion of J. Starkweather,

Resolved, That a vote of thanks be tendered to George C. Munro, Esq., for his efficient and faithful devotion to the interests of this society during the time of his official duties as its President.

On motion of S. M. Bartlett,

Resolved, That the thanks of this society be tendered to Mrs. Jones and to General Cass, for the free use of their grounds for the society's Fair.

At 2 o'clock P. M. a public sale of stock commenced. At 3 o'clock P. M. people, animals and articles began to move from the ground, and at 6 o'clock P. M. of Friday the 29th, the grounds were nearly cleared, and the society adjourned.

J. C. HOLMES, Secretary.

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LIST OF ENTRIES

AT THE SIXTH ANNUAL FAIR OF THE MICHIGAN STATE AGRICULTURAL SOCIETY, HELD AT DETROIT THE 26TH, 27TH, 28TH AND 29TH OF SEPTEMBER, 1854.

CATTLE.

SHORT HORNS—BULLS.

D. M. Uhl, Ypsilanti, bull 4 years old.
Seth A. Bushnell, Hartford, Ohio, bull 4 years old.
Gilbert Longstaff, Macomb, Mich., " 3 "
John Starkweather, Ypsilanti, " 17 months old.
S. W. Dexter, Dexter, " 8 years old.
L. J. Thomson, Hillsdale, " 2 "
Sam'l Wormley, Marshall, " 2 "
H. Arnold, Kalamazoo, " 2 "
Cyrus Fuller, Plymouth, " 4 "
Ethan Allen, Tromsburgh, Ohio, " 2 "
M. L. Brooks, Northville, " 6 "
Leman Strong, Litchfield, " 5 "
F. W. Backus, Detroit, " 4 "

COWS.

D. M. Uhl, Ypsilanti, cow 11 years old.
" " " 3 "
" " " 3 "
A. Y. Moore, Schoolcraft, cow 11 years old.
Z. Tillotson, Marshall, " 3 "
C. A. Jeffries, Dexter, " 3 "
Silas Sly, Plymouth, " 6 "
" " " 4 "

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Silas Sly, Plymouth, cow 5 years old.
C. L. Merriman, Jackson, " 8 "
M. L. Brooks, Northville, " 3 "
Patrick Kerns, Detroit, " 6 "
S. A. Randall, Brooklyn, " 3 "
S. W. Palmer, Norville, " 7 "
Geo. E. Pomeroy, Clinton, " 3 "
D. C. Blair, Tipton, " 5 "
Jno. Patton, Amherstburg, C. W., cow 5 "
F. W. Backus, Detroit, " 4 "
" " " 5 "
D. M. Uhl, Ypsilanti, heifer 1 year old.
Z. Tillotson, Marshall, " 2 "
" " " 1 "
H. Arnold, Kalamazoo, " 4 "
Silas Sly, Plymouth, " 1 "
Cyrus Fuller, " " 1 "
M. L. Brooks, Northville, 3 heifers each 2 years old.
" " heifer 1 year old.
S. A. Randall, Brooklyn, " 1 "
D. C. Blair, Tipton, " 2 "
Silas Sly, Plymouth, " 1 "

CALVES.

D. M. Uhl, Ypsilanti, bull calf 3½ months old.
" " " 3 "
F. S. Finley, Ann Arbor, " 1 "
Luther Shaw, Romeo, " 5 "
C. L. Merriman, Jackson, " 4 "
S. A. Randall, Brooklyn, " 5 "
D. C. Blair, Tipton, " 6 weeks old.
J. & S. Boelt, Norwalk, Ohio, bull calf 7 months old.
John Starkweather, Ypsilanti, heifer calf 9 "
S. W. Dexter, Dexter, " 5 "
" " " 7 "
C. A. Jeffries, " " 6 "
Silas Sly, Plymouth, " 5½ "
" " " 3½ weeks old.

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S. W. Palmer, Norville, heifer calf 3 months old.
" " calf.
F. W. Backus, Detroit, "
Seth A. Bushnell, Hartford, Ohio, bull calf 8 months old.

DEVONS.—BULLS.

Jenne & Ashley, Bethany, N. Y., bull 2 years old.
S. M. Bartlett, Lasalle, Mich., " 7 "
J. W. Childs, Paint Creek, " 4 "
P. K. Leach, Utica, " 4 "
D. Kimbal, Pontiac, " 6 "
Harvey Eggleston, Litchfield, " 2 "
H. B. Eldred, Napoleon, " 4 "
E. M. Crippen, Coldwater, " 4 "
" " " 2 "
O. W. & G. P. Bennett, Jackson, " 5 "

COWS.

Jenne & Ashley, Bethany, N. Y., cow 6 years old.
W. H. Miller, Moscow, Mich., " 6 "
" " " 4 "
J. Trowbridge, Detroit, " 3 "
E. M. Crippen, Coldwater, " 4 "
" " " 8 "
" " " 6 "
" " " 4 "
" " " 7 "
" " " 6 "
" " " 5 "
Jenne & Ashley, Bethany, N. Y., heifer 4 months old.
C. L. Merriman, Jackson, " 1 year old.
E. M. Crippen, Coldwater, " 2 "
W. H. Miller, Moscow, " 1 "

CALVES.

E. M. Crippen, Coldwater, bull calf 6 months old.
" " " 5 "
Jenne & Ashley, Bethany, " 5 "

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E. M. Crippen, Coldwater, bull calf 4 months old.
" " " 5 "
" " " 4 "
O. W. & G. P. Bennett, Jackson, bull calf 5 "
E. M. Crippen, Coldwater, heifer calf 9 months old.
" " " 5 "
" " " 5 "
" " " 4 "
" " " 2 "

AYRESHIRES.

H. W. Castle, Corunna, bull 2 years old.

CROSS OF BLOOD CATTLE.—BULLS.

Stephen P. Chamberlain, Romeo, cross blood bull 3 years old—Durham and Devon.
C. L. Treadwell, Hudson, cross blood bull, 2 years old.
Wm. Grass, Macomb, " 4 "
Oliver Hampton, Hickory Grove, " 2 "
Geo. Carman, Sturgis, " 2 "
P. Comstock, Milan, Ohio, " 5 "

COWS.

A. Y. Moore, Schoolcraft, cross blood cow, 7 years old.
C. A. Jeffries, Dexter, " 3 "
Wm. Grass, Macomb, " 6 "
J. B. Arms, Dexter, " 5 "
F. W. Backus, Detroit, " 4 "
John Starkweather, Ypsilanti, heifer, 1 "
C. A. Jeffries, Dexter, " 1 "
Wm. H. Lester, Utica, " 2 "
J. B. Arms, Dexter, " 3 "
D. C. Blair, Tipton, " 2 "
John Patton, Amherstburgh, C. W., heifer 2 "
" " " 1 "

CALVES.

J. S. Tibbits, Southfield, bull calf 1 year old.
W. H. Miller, Moscow, " 5 months old.

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D. C. Blair, Tipton, bull calf 2 weeks old.
J. B. Arms, Dexter, " 10 "
W. H. Lester, Utica, " 7 months old.
Wm. Grass, Macomb, calf.
C. A. Jeffries, Dexter, heifer calf 7 months old.
Geo. E. Pomeroy, Clinton, " 7 "

GRADE CATTLE.—BULLS.

F. Abby, Armada, bull 3 years old.
John Price, Romeo, " 3 "
E. Hazen, Novi, " 1 "
C. A. Green, Troy, " 2 "
" " " 1 "
Leonard Lee, Armada, bull 2 "
O. W. & G. P. Bennett, Jackson, bull 1 year old.
D. C. Blair, Tipton, " 1 "

COWS.

D. M. Uhl, Ypsilanti, cow 8 years old.
" " " 6 "
" " " 5 "
Jenne & Ashley, Bethany, N. Y., cow 3 years old.
J. S. Tibbitts, Plymouth, " 3 "
" " " 2 "
P. K. Leach, Utica, " 4 "
Samuel Carey, Armada, " 8 "
J. L. Stout, Troy, " 8 "
A. La Plant, Detroit, " 4 "
E. Eldred, " " 6 "
C. A. Green, Troy, " 3 "
Geo. Clark, Lapeer, " 3 "
John Starkweather, Ypsilanti, heifer 2 "
J. L. Stout, Troy, " 2 "
S. A. Randall, Brooklyn, " 1 "
D. M. Uhl, Ypsilanti, 2 heifers each 2 years old.
" " " 1 "
Heman Hix, Ann Arbor, heifer 1 year old.

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CALVES.

W. F. Bramble, Royal Oak, bull calf.
John Starkweather, Ypsilanti, " 5 months old.
P. K. Leach, Utica, " 5 "
E. H. Cressey, Troy, " 4 "
John Whitcomb, West Besher, " 7½ "
A. B. Patch, Ray, " 6 "
O. W. & G. P. Bennett, Jackson, bull calf 5 "
Geo. Clark, Lapeer, calf 8 months old.
D. C. Blair, Tipton, heifer calf 4½ "
J. L. Stout, Troy, " 5 "

NATIVES.—COWS.

B. Thomson, Detroit, cow 5 years old.
E. H. Cressy, Troy, " 5 "
Asa H. Otis, Greenfield, 3 cows each 7 years old.
Silas Sly, Plymouth, cow 8 years old.
B. Thomson, Detroit, heifer 18 months old.

CALVES.

Asa H. Otis, Greenfield, heifer calf 14 weeks old.
" " " 14 "
Ganett Krassold, Roseville, pair bull calves 4 months old.

WORKING OXEN AND STEERS.

J. D. Martes, Armada, pair working oxen 4 years old.
Allen Freeman, Greenfield, pair working oxen 5 "
J. S. Tibbitts, Plymouth, " 5 "
Joslyn & Norris, Ypsilanti, 2 pair " 6 "
A. Knapp, Northville, " 9 "
" " " 9 " as trained cattle.
Calvin A. Green, Troy, " 5 "
J. B. Arms, Dexter, " 8 "
D. M. Uhl, Ypsilanti, pair grade steers 2 years old.
" " " 2 "
S. A. Randall, Brooklyn, " 3 " also for trained steers.
Heman Castle, Detroit, pair native steers 4 "
A. L. Gilbert, Corunna, " 2 " " "

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John Starkweather, Ypsilanti, pair Durham grade steers 2 years old.
Wm. H. Lester, Utica, " 1 "
Wm. Maiden, Plank Road, pair working oxen 7 years old.

FAT CATTLE AND MILCH COWS.

S. W. Bowers, Borodino, fat ox, native.
Munson Hurd, Monroe, pair fat oxen 8 years old.
Joslyn & Norris, Ypsilanti, pair fat cattle 8 "
Richard Lewis, Kalamazoo, fat ox 9 "
H. Arnold, Kalamazoo, " 7 "
Silas Sly, Plymouth, fat steer 3 years old, grass fed.
" " " 2 " "
Amos Mead, Mead's Mill, fat cow 5 " "
James Smith, Greenfield, milch cow 9 years old, grade.
" " " 6 " "
" " 2 " 6 " native.
" " " 4 " "
Stephen Lapham, Farmington, milch cow 11 "
Silas Sly, Plymouth, " 8 " "
F. S. Finley, Ann Arbor, " 7 " Durham.
Amos Otis, Greenfield, " 8 " native.

HORSES.

STALLIONS.

Archibald Brink, Nankin, Morgan stallion 8 years old, for all work.
H. Benson, Hinesburgh, Vt., " " 5 " "
G. Mason, Penn Yan, N. Y., " 4 " "
H. Benson, Hinesburgh, Vt., Black Hawk Morgan stallion, 3 years old, for all work.
G. Mason, Penn Yan, N. Y., Henry Clay stallion, 6 years, for all work.
Eldred & Backus, Detroit, Jackson " 14 " "
John Stump, " " 3 " "
D. F. Hendryx, Marshall, Morgan " 7 " "
J. W. Dickinson, Hillsdale, Suffold " 3 " draught.

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D. McComber, Baltimore,		stallion,	2	years,	for all work.
Noel Roder, Detroit,		"	4	"	French blood.
Geo. Smith, Salem,		"	3	"	full "
do "		"	2	"	" "
S. Trumball, Greenfield,		"	2	"	for daught.
C. L. Treadwell, Hudson,		"	6	"	all work.
E. H. Cressey, Troy,		"	5	"	"
S. D. Blood, Kalamazoo,	Black Hawk	"	7	"	"
A. Craprer, Flint,		"	8	"	"
H. Hosmer, Bennington, N. Y.,		"	7	"	for draught.
B. J. Bidwell, Tecumseh,	Blood	"	3	"	
do "	"	"	5	"	
F. Gagnier, Detroit,	"	"	5	"	
A. La Plant, "	"	"	4	"	"
L. Wood, Tecumseh,		"	5	"	for all work.
H. R. Andrews, Detroit,	"	"	4	"	
A. H. Otis, Greenfield,		"	8	"	draught.
do do		"	1	"	"
do do	colt	"	4½	mos.	
W. C. Groosebeck, Detroit,	Blood	"	5	years.	
I. D. Charles, Plymouth,		"	4	"	for all work.
A. Knappe, Northville,		"	2	"	"
Jared Dandron, Detroit,		"	1	"	"
John Edches, Thamesville, C. W.,		"	5	"	for draught.
B. Dewey, Troy,	"	"	10	"	
B. J. Bidwell, Tecumseh,		"	3	"	for all work.
Robert Milligan, Almont,		"	3	"	"
A. Braidwood, do		"	3	"	"
R. C. Cone, Troy,		"	2	"	"
Millon Thompson, Ray,	"	"	3	"	"
J. B. Arms, Dexter,		"	5	"	"
H. Cowden, Grass Lake,	"	"	3	"	"
A. C. Fisk, Coldwater,	"	"	4	"	"
N. G. Isbell, Stockbridge,		"	3	"	"
J. Frier, Canton,		"	6	"	for draught.
E. Palmer, Plymouth,	"	"	3	"	
A. H. Otis, Greenfield,	colt	"	1	"	"

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Thos. Riley, Roseville,		stallion,	3 years,	for all work.
Samuel Rappelgee, Ridgeway,	blood	"	5 "	"
E. S. Leadbeater, Detroit,		"	5 "	"

MARES AND COLTS.

Wm. Maiden, Plank Road,		Mare,	2 years old,	for all work.
Andrew Wilkie, Detroit,	colt	"	3 "	"
D. M. Uhl, Ypsilanti,	brood	"	6 "	"
do do	2 colts, mares, each		1 "	"
do do	1 do do		2 "	"
J. W. Dickinson, Hillsdale,	2 do	each	7 "	for draught.
do do	colt do		2 "	"
Peter Russell, Greenfield,	do	foal at fooot,		for all work.
John W. Reed, Redford,	colt do		2 years old,	"
E. H. Cressey, Troy,	brood do		7 "	for draught.
C. A. Jeffries, Dexter,	blood do		3 "	
John Martin, Detroit,	brood do		9 "	with foal at foot.
F. W. Backus, do	2 blood do	each	4 "	
Wells Burt, Mt. Vernon,	colt do		2 "	for all work.
do do	do do		1 "	"
Geo. Morse, Troy,	do do		3 "	"
Geo. Clark, Lapeer,	brood do		11 "	with foal at foot.
do do	do		2 "	for all work.
H. R. Andrews, Detroit,	blood do		5 "	
A. H. Otis, Greenfield,	brood do		3 "	for draught.
do do	do		5 "	"
do do	do		2 "	"
do do	do		1 "	
do do	colt do		4½ mos.	
Geo. A. Dennison, Troy,	do do		3 years	for all work.
A. Knapp, Northville,	do		2 "	"
C. Reeve, Detroit,	brood do		6 "	for draught, foal at foot.
James Shehen, Greenfield,	colt do		2 "	for all work.
Jared Dandron, Detroit,	brood do		8 "	" foal at foot.
T. F. Gerls, Troy,	blood do		9 "	foal at foot.

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T. F. Gerls, Troy, blood mare 3 years old.

Patrick Kerns, Detroit,	colt	2 years old, for all work.
T. F. Gerls, Troy,	do	4 mos.
Geo. Clark, Lapeer	do	1 year, "
J. R. Tibbitts, Southfield,	do	2 "
D. M. Uhl, Ypsilanti,	do	2 "

MATCHED AND SINGLE HORSES.

S. B. Morse, Detroit,	pair matched	ponies.	
Allen Tireman, Greenfield,	"	mares,	4 years old.
S. M. Bartlett, Lasalle,	"	horses	4 do
D. F. Hendryx, Marshall,	"	"	8 "
F. E. Eldred, Detroit,	"	"	6 "
J. W. Tillman, do	"	mares,	5 "
Saml. Rappalgee, Ridgeway, 2	"	horses	6 "
Horace Welch, Ypsilanti,	"	"	5 "
John W. Brook, Farmington,	"	"	5 "
G. Blumburg, Royal Oak,	"	"	6 "
O. M. Martin, Ann Arbor,	"	"	6 "
D. Watson, Albion,	"	"	3 "
S. R. Squier, Detroit	"	"	8 "
C. A. Jeffries, Dexter	"	"	5 "
A. Craprer, Flint	"	"	6 "
Burke Spencer, Ypsilanti,	"	"	4 "
S. Reeve, Detroit,	"	"	5 & 8 "
H. H. Brown, "	"	"	7 "
F. W. Backus, "	"	"	6 & 8 "
Henry Randolph, Adrian	"	"	6 "
S. B. Olney, do	"	"	7 "
Louis Andrews, Washington	"	"	4 "
C. Reeve, Detroit,	"	"	7 & 8 "
L. W. Beebe, "	"	"	5 & 6 "
do "	"	"	7 & 8 "
do "	"	"	6 & 7 "
John M. Norton, Troy,	"	colts	3 "
do do	"	"	4 "
J. J. Gould, West Besher,	"	horses	4 "

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S. J. Freeman, Borodino,	pair matched	horses	6 years	old.
H. B. Knight, Buchanan,	"	mares	4 & 6	"
Jos. S. Swan, Sturgis,	"	horses	5 & 6	"
J. Hendrickson, Detroit,	single	mare,	8	"
A. A. Sull, Pontiac,	"	horse	8	"
Jenne & Ashley, Bethany, N. Y.,	"	"	7	"
G. O. Williams, Detroit,	"	"	6	"
C. G. Blindbury, do	"	"	6	"
James Smith, Greenfield,	"	"	5	"
do do	"	poney	14	"
John Starkweather, Ypsilanti,	"	horse	7	"
do do	"	"	5	"
Munson Hurd, Monroe,	"	"	6	"
Wm. Cole, Detroit,	"	"	7	"
J. M. Reese, Kalamazoo,	"	"	7	"
D. Crawford, Detroit,	"	poney	6	"
B. J. Bidwell, Tecumseh,	"	horse	5	"
Wm. Fields, Delaware, Iowa,	"	"	4	"
J. A. Austin, Detroit,	"	mare	10	"
Silas Sly, Plymouth,	"	"	5	"
A. Y. Moore, Schoolcraft,	"	horse	7	"
C. Reeve, Detroit,	"	"	3	"
F. W. Backus, "	"	"	7	"
G. L. Bidwell, Adrian,	"	"	7	"
Geo. Clark, Lapeer,	"	"	2	" for draught,
H. R. Andrews, Detroit,	"	"	6	"
Byron Green, do	"	"	6	"
J. W. Collins, Farmington,	"	"	6	"
Geo. Newberry, Romeo,	"	"	7	"
J. D. Charles, Plymouth,	"	"	8	"
T. F. Gerls, Troy,	"	mare	3	"
C. G. Wheeler, Ypsilanti,	"	horse	6	"
S. W. Beebe, Detroit,	"	"	7	" for draught.
K. C. Baker, do	"	"	6	"
S. P. Brady, do	"	"	7	"
J. S. Swan, Sturgis,	"	"	4	"

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SHEEP.

SPANISH MERINOS.

Daniel Kimball, Rutland, Vt.	Buck,	3	years old.
" "	5 ewes,	3	"
Jenne & Ashley, Bethany, N. Y.	buck,	1	"
" "	10 ewes,	2	"
" "	10 "	3	"
Jno. Johnson, Williston, Vt.	buck,	2	"
" "	5 ewes,	3	"
Ira H. Butterfield, Utica, Mich.	5 "	3	"
" "	10 "	1	"
John Starkweather, Ypsilanti,	buck 5 years old.		
" "	5 ewes 1 "		
J. W. Dickinson, Hillsdale,	6 "	2	"
" "	2 bucks,	2	"
" "	1 "	1	"
John Starkweather, Ypsilanti,	5 buck lambs,		
" "	5 ewe "		
W. C. Fonda, Battle Creek,	5 ewes 3 years old.		
B. Peckham, Albion,	1 buck	7	years old.
" "	"	3	"
" "	3 " each	2	"
" "	10 ewes, "	2	"
" "	5 " "	3	"
" "	10 " "	1	"
" "	2 bucks, "	1	"
" "	5 " lambs,	5 mos	"
" "	5 " "	$4\frac{1}{2}$	" "
" "	5 ewe "	5	" "
" "	5 " "	$4\frac{1}{2}$	" "
J. W. Dickinson, Hillsdale,	5 ewes,	1	year old.

SAXON AND SILICIAN.

John Johnson, Williston, Vt.,	Silician buck,	2	years old.
W. S. Schuyler, Birmingham, Mich.	"	1	"
" "	5 ewe lambs.		
B. Peckham, Albion,	Saxon buck,	2	"

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FRENCH MERINOS.

John Brewer, Ypsilanti,		buck,	3 years old
" " "		"	1 "
" " "		5 ewes	1 "
Geo. Campbell & Co., West Westminster, Vt.,		buck,	1 "
" " "		" 5 ewes,	3 "
Daniel Kimball, Rutland, Vt.,		buck,	3 "
" " "		"	2 "
" " "		"	1 "
John Johnson, Williston, "		"	2 "
J. D. Patterson, Westfield, N. Y.,		2 bucks,	2 "
" " "		1 "	4 "
" " "		5 ewes	3 "
" " "		5 buck lambs,	
" " "		5 ewe "	
M. L. Shutts, Plymouth, Michigan,		5 buck "	
" " "		1 "	1 year old
J. W. Dickinson, Hillsdale, "		"	1 "
W. C. Fonda, Battle Creek, "		"	5 "
N. S. Schuyler, Birmingham,		"	2 "
A. S. Patterson, Perry Center, N. Y.		3 ewes,	2 "

CROSS OF FULL BLOOD SHEEP.—MERINOS.

John Brewer, Ypsilanti, French and Spanish buck, 3 years old.

"	"	"	"	"	"	2	"
"	"			"	"	1	"
"	"	5	"	"	ewes,	3	"
"	"	5	"	"	"	2	"
"		5	"	"	"	1	"

John Johnson, Williston, Vt., 5 French and Spanish ewes, 1 year old.

J. D. Patterson, Westfield, N. Y., 10 French and Spanish bucks, 1 y'r. old.

Ira H. Butterfield, Utica, Mich.,	5	"	"	ewes,	2	"
"	"	10	"	"	"	1	"
Walter Wright, Adrian,			"	"	buck,	5	"
Ira H. Butterfield, Utica,			"	"	buck,	1	"
Payne K. Leach, "			"	"	"	1	"
"	"	5	"	"	ewes.		

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GRADE SHEEP.

Joseph Tireman, Greenfield,	Grade buck,	2	years old.	
" "	"	1	"	
" "	5 " lambs,			
" "	5 " ewe "			
Allen Tireman, "	5 " ewes	1	"	
Spencer Peel, Amherstburgh,	4 " buck lambs,			
W. S. Schuyler, Birmingham,	" buck	1	"	
A. H. Otis, Greenfield,	5 " ewe "			
Jno. K. Godfrey, Gidley's Station,	5 " bucks,	1	"	
" "	3 " "	2	"	
" "	10 " ewes,	1	"	
" "	10 " "	2	"	
Allen Tireman, Greenfield,	5 native ewes,	2	"	
Jno. K. Godfrey, Gidley's Station,	5 ewe lambs,			
" "	5 buck "			
Samuel Stuckey, Redford,	"	1	"	
" "	grade lambs.			

LONG WOOLED SHEEP.

Joseph Tireman, Greenfield,	buck, 1 year old.		
" "	5	ewe lambs.	
Allen Tireman, "	5	ewes,	2 years old.
John L. Howe, Utica,	5	ewes.	
" "	5	ewe lambs.	
" "	5	buck "	
" "	1	buck,	2 years old.
" "	buck,	1 year old.	
Spencer Peel, Amherstburgh, C. W.,	5 ewes,	3 years old.	
" "	2 ewe lambs.		
" "	4 buck lambs.		
Elias Stone, Roseville, buck, 3 years old.			
O. W. & G. P. Bennett, Jackson, buck, 3 years old.			
" "	5 buck lambs.		
Jno. Patton, Amherstburgh, C. W., buck, 1 year old.			
" "	buck lamb.		
Spencer Peel, "	3 fleeces wool.		

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MIDDLE WOOLED SHEEP.

Wm. H. Lester, Macomb,	5 ewes,	1	year old,	Southdown.
" " "	5 " lambs,			"
" " "	5 buck "			"
" " "	1 "	3	years old,	"
" " "	1 "	1	"	"
Joseph Tireman, Greenfield,	5 ewes,	2	"	
Wm. Whitfield, Waterford,	2 bucks,	3	"	"
Daniel Whitfield, Pontiac,	5 ewes,	3	"	"
" " "	5 "	2	"	"
" " "	5 ewe lambs,			"
" " "	2 bucks,	3	years old,	"
" " "	1 "	2	"	"
David Brown, Detroit,	2 Shepherd's Dogs.			

FAT SHEEP.

Jno. K. Godfrey, Gidley's Station, 1 fat sheep.

SWINE.

J. S. Tibbitts, Plymouth,	Full blood Essex boar.		
" "	" sow.		
F. W. Backus, Detroit,	1 Berkshire boar,	2	years old.
" "	1 " sow,	3	"
" "	7 " pigs,		
J. S. Tibbitts, Plymouth,	full blood Suffolk boar,	5	mos. "
" "	" sow,	6	" "
Gurdin Perrin, Milan, Ohio.	grade boar.	2	years old.
E. H. Cressey, Troy,	"	20	months old.
A. H. Otis, Greenfield,	"	2	years old.
" "	2 grade sows, each	1	"
" "	1 " boar,	1	"
" "	1 " "	6½	months old.
" "	1 " sow	7	"
" "	1 " "	6½	"
" "	1 lot grade pigs.		
J. S. Tibbitts, Plymouth,	1 "	7	"

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Joseph Meredith, Detroit,	1 breeding sow,	2 years old.
Asa H. Otis, Greenfield,	1 grass "	1 "
" "	1 fat hog,	15 months old.
J. P. Clark, Detroit,	1 native pig,	2 years old.
W. S. Lunt, Findlay, Ohio,	2 Essex pigs,	3 months old.

POULTRY.

Wm. Maiden, Plank Road,	Wild Turkies, cock and two hens.
Peter Lee, Detroit,	2 coops Shanghais.
" "	1 coop Cochin Chinas.
James Smith, "	1 " "
" "	1 " Moscow ducks.
Prince Bennett, Ypsilanti,	1 " Shanghais, red.
" "	1 " " buff.
" "	3 coops "
" "	1 coop Cross Bloods.
Thomas Aul, Detroit,	3 Shanghais, 4 months old.
" "	8 Cross Breeds.
M. Freeman, Schoolcraft,	coop light Bramas.
" "	" mixed "
" "	" speckled "
" "	" red Cochins.
" "	" black "
" "	" Shanghais.
" "	" Chittagongs.
" "	" Hong Kongs.
" "	" Dorkings.
" "	" Bantams, sea bright.
" "	" Sumatra, pheasant games.
" "	" Dominique and Shanghai.
" "	" Cochin and Brama.
" "	" Lop-eared Rabbits.
Wm. Hudson, Detroit,	" white Bantams.
" "	" Bantams, sea bright.
" "	" brown Shanghais.

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Wm. Hudson, Detroit, coop buff Shanghais.
" " " speckled "
" " " Brahma Pootra.
" " " Pea Fowls.
" " " Aylsbury ducks.
Wm. Hudson, Detroit, coop, Muscovy ducks.
" " " common pigeons.
" " " tumbler "
" " " pea fowls.
" " " ruff pigeons.
Alex. Melvin, " " common white ducks.
E. R. Post, " " variegated Shanghais, 4 mos. old.
" " " buff white, 2 and 4 mos. old.
E. H. Cressey, Troy, " Brahma pootras.
" " " white Shanghais.
" " " Cochin Chinas.
" " " speckled dorkings.
" " " white "
" " " bantams.
Wm. Hudson, Detroit, 1 swan.
E. H. Cressey, Troy, " buff Shanghais.
James Luff, Detroit, " "
W. W. Macomber, Barcelona, N. Y., coop Brahma pootras 12 mos. old.
" " " " " 4 "
" " " " " 3 "
" " " 3 coops " 10 weeks old.
" " " coop dominique Sh'gh's, 12 m. old.
" " " " Hong Kong.
" " " " buff Shanghais, 4 mos. old.
" " " " " 3 "
" " " " white " 4 "
" " " " " " 3 "
" " " " white & buff " 4 "
" " " " brown " 3 "
" " " " " " 10 w. "
" " " " imp. Chinese, 4 m. "
" " " " Cochin Chinas 4 "

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W. W. Macomber, Barcelona, N. Y., coop brahma and buff Shanghais, 3 ½ months old.
F. F. Parker, Detroit, white Shanghais.
" " brama pootras.

F. F. Parker	Detroit,		coop black Spanish,
"	"		" black Spanish & white Shanghais.
L. L. Beaufiet,	"		" turkeys.
A. F. Moon,	Paw Paw,		" Bramah pootras.
"	"		" Shanghais.
"	"		" Chittagong.
John Sherman,	"	2	" Hong Kong.
"	"	2	" Chittagongs,
"	"		" Cross Breeds.
James Dougall,	Windsor, C. W.		" Speckled Dorkings.
"	"		" Bantams, Sea Bright,
Francis Leslie,	Dearborn,		" grey geese,
"	"		" turkeys.
"	"		" Guinea fowls.
"	"		" Dorkings.
Norton Lapham,	Farmington,		" grey geese.
Peter Blane,	Livonia,	3	" Cochin China.
John Zetler,	Dearborn,		" Shanghais.
"	"		" Dorkings.
Ira Slade,	Detroit,		" wild geese.
W. W. Macomber,	Barcelona, N. Y.		" Brahma Pootra, 4 months old.
"	"		" Perley Shanghais.
"	"		" speckled "
E. H. Cressey,	Troy		" white Shanghais, 12 weeks old.
"	"		" Brahma Pootra, 12 weeks old.
J. J. Speed,	Detroit,		" Poland Chickens.
Wm. Hudson,	Detroit,		" fantailed pigeons.
D. Clarkson,	Northville,		" ducks.
"	"		" Chittagongs.
"	"		" grade java.
Abram A. Gardiner,	Northville,		" Cochin Chinas.
Leonard Lee,	Armada,		" Shanghais.
"	"		" Brahma pootras.

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Jno. K. Godfrey, Gidley's Station, coop Shanghais.
G. W. Bothwell, Albion, " Shanghais.
" " " white Bantams.
B. Peckham, " " Shanghais.
James Baker, Detroit, " Rough and Ready chickens.
G. W. Fox, Mansfield, Ohio, " Cochin Chinas.
" " " white Shanghais.
O. J. Bissell, " " red "
W. S. Lunt, Findlay, Ohio, " Cochin Chinas.
" " " Brahma Pootras.
" " " Sumatra Pheasant.
O. J. Bissell, Mansfield, Ohio, " dominique Shanghais.
G. W. Fox, " " buff "
" " " black "
Heman Hicks, Ann Arbor, " Turkeys.
L. J. Thomson, Hillsdale, " Shanghais.

M. Freeman, Schoolcraft, best and largest variety of fowls grown by exhibitor. Variety not less than 3; 1 cock and 2 hens.

W. W. Macomb, Barcelona, N. Y., best and largest collection of fowls grown by exhibitor, not less than 3; 1 cock and 2 hens.

M. Freeman, Schoolcraft. Largest number and weight of eggs obtained from a lot of hens during the season.

FARM IMPLEMENTS.

T. A. Flower, Pontiac, wheat cultivator, spring steel teeth.
" " corn "
Joseph Sedgebeer, Detroit, corn stalk and hay cutter.
" " conical burr-stone mill, for farmers use.
Heman B. Hammon, Bristolville, O., ox-bow fastening.
T. Deuel, Detroit, straw and corn stalk cutter.
Bean & White, Hudson, fanning mill.
Prince Bennett, Ypsilanti, Scotch harrow.

J. H. Manny, Rockford, Ill., patent adjustable Reaper and Mower, combined.

J. S. Tibbitts, Plymouth, ox yoke.

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W. M. Chappell, Williamston, hay, corn stalk, straw or feed cutter.
J. S. East, Vandalia, fanning mill.
Chas. Dickey, Marshall, "
Wm. Maiden, Plank Road, hay rigging.
Ezra Curtis, Greenfield, ox yoke and bow.
E. H. Bennett, Plymouth, portable cider mill.
J. S. Gage, Dowagiac, machine for gathering clover seed in the field.
D. O. & W. S. Penfield, Detroit, Hitchcock's patent cider mill.
" " No. 1 corn sheller.
" " "
" " ox yoke.
" " No. 2 corn stalk cutter.
" " " 3 "
" " hay and stalk cutter.
" " box cultivator teeth.
" " 1 cultivator.
" " 4 wooden apple parers.
" " 1 dozen " cast iron.
" " bark mill.
" " dog power.
" " corn cultivator improved teeth.
" " seed drill.
" " 3 pair hedge shears.
D. O. & W. S. Penfield, Detroit, bush hook.
" " " " with handle.
" " " 4 flower forks.
" " " sod knife.
" " " 1 each 2 sizes transplanting trowels.
" " " hand corn sheller.
" " " 1 doz. manure forks.
" " " fanning mill.
" " " 1 No. 5 Trojan plow.
" " " 1 " 4 "
" " " 1 " 3 Starbuck plow.
" " " 1 " 5 "
" " " 1 " 6 "
" " " 1 " 2 corn plow.

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D. O. & W. S. Penfield, Detroit, 1 No. 71 Eagle plow.
" " " 1 " 72 Eagle plow.
" " " 1 " 73 "
" " " 1 " 74 "
" " " 1 " 75 "
" " " 1 flat furrow plow.
" " " 1 No. 3 fancy plow.
" " " 2 horse railroad power.
" " " 1 "
" " " 1 each No. 2 & 3 corn cob mill—Scott's little giant.
D. O. & W. S. Penfield, Detroit, thresher and separator.
" " folding harrow.
" " 1 each 6 sizes hay and straw cutter.
" " vegetable cutter.
P. Seymour, E. Plainfield, N. Y., grain drill for all seeds.
" " broad cast sowing machine, for all seeds.
" " cultivator or horse hoes.
D. O. & W. S. Penfield, Detroit, portable saw mill.
" " 2 ½ doz. straight forks.
" " 4 Partridge forks.
" " 1 seed sower.
E. B. Spencer, Redford, Bee Hive.
D. O. & W. S. Penfield, Detroit, No. 4 Starbuck plow.
" " No. 37 Eagle plow.
" " apple parer.
Davis, Austin & Co., Jackson, 4 lumber wagons.
E. R. Smith, Homer, 2 hay, corn-stalk and straw cutters.
R. T. Merril, Battle Creek, thresher and separator.
M. Hammond, Marshall, 1 automaton and self raking reaper.
F. F. Parker & Bro., Detroit, vegetable cutter.
" " cheese press.
" " iron cultivator.
" " clover huller.
" " churn.
Aaron Palmer, Brockport, N. Y., self raking reaper, Palmer & Williams' patent.

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James Andrews, Pontiac, corn planter.
Willard Fisher, Brockport, N. Y., Seymour, Morgan & Co.'s self raking reaper.
Willard Fisher, Brockport, N. Y., Ketchum's mowing machine.
F. F. Parker & Bro., Detroit, hay cutter.
" " corn stalk cutter.
" " sub-soil plow.
" " 5 assorted plows.
" " saw mill.
J. M. Wade, Clinton, churn for butter.
Samuel Rappleyee, Ridgeway, farm wagon.
C. M. McKenzie & Son, Adrian, straw and stalk cutter.
J. Reynolds, Republic, Ohio, sod plow for stiff soils.
" " " light soils.
" " sub-soil plow.
R. A. Graham, New Paris, Ohio, plow for general purposes.
I. C. Rich, Penfield, N. Y., 2 straw and hay cutters.
F. Brownell, Pokagon, gang plow and seeder.
S. B. Fisher, Coldwater, corn planter.
W. Beebe, New Canandaigua, model double spade corn planter.
A. Arms, Kalamazoo, wheel cultivator.
Joslyn & Norris, Ypsilanti, single plow.
A. M. Bodwell, Ann Arbor, improved bran duster.
G. W. Bell, Ann Arbor, Solomon's improved grain and seed separator.
S. Arnold, Addison, corn drill.

TEAMS ENTERED FOR PLOWING MATCH.

Joslyn & Norris, Ypsilanti, pair oxen 6 years old, single plow; Chas. Alburn, plowman.

Thos. F. Gerls, Troy, pair horses and yoke of cattle as one team, horses 9 and 4 years, cattle 5 years old, double plow; Calvin A. Green, plowman.

B. Dewey, Troy, span of horses for plowing, age not known, single plow; plowman, B. Dewey.

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A. Wattles, Troy, span of horses 8 years old, single plow; T. Smith, plowman.

A. Knapp, Northville, yoke of cattle 9 years old, single plow; A. Knapp, plowman.

John Starkweather, Ypsilanti, span of horses 3 and 4 years old, single plow; Thos. Tibbitts, plowman.

Joseph Tireman, Greenfield, span of horses 4 years old, single plow; Allen Tireman, plowman.

Joseph Tireman, Greenfield, yoke of oxen 5 years old, single plow; John Tireman, plowman.

BUTTER, CHEESE, HONEY, SUGAR.

F. S. Finley, Ann Arbour,	15 lbs.	butter.	
Jno. W. Pardee, Dearborn,	15	"	made in September.
Jane Hutchinson, Ypsilanti,	15	"	" June.
" "	15	"	" at any time.
Joseph Tireman, Greenfield,	15	"	" September.
John Gray, Dearborn,	15	"	" at any time.
Samuel Rappleyee, Ridgeway,	2	cheese.	
Mrs. Munson Hurd, Monroe,	Sage	"	
J. S. Tibbitts, Plymouth,	old	"	
" "	new	"	
E. J. Bonnie & East, Vandalia,	box honey & hive.		
Mrs. Ives Tibbitts, Southfield,	15 lbs butter, made in September.		
E. B. Spencer, Redford,	honey box hive.		
" "	box honey.		
A. L. Gilbert, Corunna.	10 lbs. maple sugar.		
Mrs. G. W. Collins, Farmington,	15 lbs. butter, made in June.		
" "	15	"	" at any time.
" "	10 lbs. maple sugar.		
M. J. James, Birmingham,	jar butter.		
A. F. Moon, Paw Paw,	glass pyramid of honey.		
Jas. Smith, Greenfield,	tub butter.		
" "	15 lbs. butter made at any time.		
" "	crock	"	in June.

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James Smith, Greenfield, 2 hams, cured with salt and salt petre.
Jas. H. Murray, Farmington, 2 old cheese.
" " 38 new cheese.
Norton Lapham, " 7 " "
" " 2 old "
" " 2 sage "
Samuel S. Millis, Pontiac, crock lard,
F. W. Fairman, Canton, 12 new cheese six months old.
" " 8 "
George Morse, Big Beaver, 15 lbs. butter made in September,
L. Bristol, Almont, 10 lbs. maple sugar.
W. A. Dennison, Troy, 15 lbs. June butter.
L. Lapham, Farmington, 1 old chesse.
" " 3 new "
" " 1 sage "
Clark Beardsly, Troy, 20 lbs. butter.
B. Dewey, " jar "
Mrs. Oliver Hampton, Hickory Grove, 18 lbs. butter, made in June.
E. Cross, Redford, 22 lbs. butter made in September.
Henry Waldron, Pontiac, 10 lbs, honey, box, hive.
Jno. Patton, Amhertsburgh, C. W. 1 lot cheese.
W. Helmick, Berrien Springs, 4 ears yellow Oronico corn.

DOMESTIC MANUFACTURES.

F. S. Finley, Ann Arbor, patch work quilt.
Mrs. Abigail Brink, Nankin, 1 coverlet, woolen and cotton.
Louis Vallincourt, Detroit, patch work quilt.
Beecher, Rice & Ketchum, " 1 set 2 pc. yd. wide Turkey, velvet carp.
" " 1 " 2 " English, "
" " 1 " 2 " Brussels, "
" " 4 " Aubusson, "
" " 2 " Smith's pat. tapestry.
" " 2 " Thompsonville, ingrain.
" " 2 velvet lounges.
" " 1 easy chair.

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Beecher, Rice & Ketchum, Det., 1 spring mattrass.
" " 1 hair "
" " 1 set satin de laine curtains.
" " 1 set wrought lace.
" " collection carpets and upholstery goods.
" " pair ruggs.
Wm. Shulties, " tomb stone.
" " marble mantle pieces.
John Hoffner, " 1 pin cushion.
John Collins, " 1 Buffalo wagon.
James Cunningham, Rochester, N. Y., 3 coaches.
" " 2 light family carriages.
" " 6 top buggies.
" " 2 open "
G. H. Shearer & Dewey, Detroit, 4 sashes.
" " 1 door.
" " 1 pr. blinds.
Ladue & Eldred, " 6 sides slaughtered sole leather.
" " 6 harness.
" " 6 bridles.
" " 6 sides upper leather.
" " 6 calf skins.
Ladue & Eldred, Detroit, 6 kip skins.
" " 5 rolls leather belting.
" " 1 open buggy.
D. F. Hendryx, Marshall, 1 "
" " 1 two horse harness.
Jas. Flower & Bro., Detroit, 1 case brass work.
Weickle & Wisner, " 2 pair suspenders.
" " 2 pair buck gloves.
" " 1 truss.
" " pair fur gloves.
" " pair elastics.
Mrs. S. Weston, Detroit, knit bed spread.
L. L. Farnsworth, " case ladies' shoes.
Patrick Blake, " pair patent leather boots.
" " pair calf skin dress boots.

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Patrick Blake, Detroit, pair double soled pegged calf boots.
Wm. Hodgkins, " child's wagon.
Cullen Brown, " 2 saddles.
H. Welch, Ypsilanti, patch work quilt.
Mrs. Buddleston, Gibralter, 1 white quilt.
John Patton, Detroit, 1 light two seat carriage.
" " 1 rockaway.
" " 1 top buggy.
" " 1 open "
J. Reynolds, Concord, knit bed spread.
Miss M. Aspinwall, Detroit, crochet bed spread.
Thatcher Hemmick, " 2 willow wagons.
" " 2 willow cabs.
Caldwell, Haworth & Gilman, Detroit, cottage set of chamber furniture.
Mrs. Shipner, Detroit, 2 quilts.
Mrs. J. L. Stout, Troy, 1 pair double threaded stockings.
Hallock & Raymond, Detroit, 1 frock coat.
" " 1 velvet vest.
" " pair cassimere pants.
" " pair silk gloves.
Hallock & Raymond, Detroit, 1 satin stock.
" " 1 linen bosom.
" " 1 collar.
" " 1 rubber cap.
" " 1 pair French shoes.
" " 1 watch chain.
G. W. Howe, " 1 Boston chaise.
S. D. Blood, Kalamazoo, 1 trotting sulky.
Mrs. Elizabeth Kirk, Dearborn, 1 white quilt.
" " 2 pair woollen blankets.
Henry Meed, Pontiac, white quilt.
" " pair woollen blankets.
Ferdinand Ocksenfeld, Detroit, 2 horse iron axle wagon.
Charles Parsons, Pontiac, 1 double carriage.
" " 1 single buggy.
R. L. Barrowman, Detroit, collection hats, caps and furs.
Mrs. J. L. Stout, Troy, pair double threaded woollen socks.

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Mrs. J. L. Stout, Troy, pair woollen threaded stockings.
Neil & Keith, Detroit, set plumber works.
Webber & Stevens, " 2 rosewood sofas.
" " 2 " easy chairs.
" " 2 " ladies' chairs.
" " 5 parlor chairs.
" " 1 book case, walnut.
" " 1 rosewood centre table.
Mrs. Lydia Sweet, Redford, 26 y'ds rag carpet, 1 pair buff mitts.
F. Buhl & Co., Detroit, 1 case containing 3 hats.
" " 1 " " velvet and cloth caps.
Miss Abigail Brink, Nankin, 1 double coverlet.
Eagle & Elliott, Detroit, frock overcoat.
" " " dress coat.
" " dress coat.
" " 1 vest.
Mrs. Esther Thomas, Detroit, 3 gent's linen shirts.
Mrs. Francis Leslie, Dearborn, pair woollen blankets.
" " 10 yards woollen flannel.
" " 1 knit shirt.
" " pair woollen socks.
" " 1 lb stocking yarn.
" " 1 pair knit cotton stockings.
" " 1 cotton night cap.
Wm. Richmond, " pair knit worsted mitts.
T. H. Armstrong, Detroit, case containing hats.
J. M. Wade, Clinton, churn for butter.
Miss Mary Cotler, Detroit, 2 quilts, pieced.
D. O. & W. S. Penfield, Detroit, Stewart's cook stove.
" " parlor stove.
" " parlor coal stove.
H. R. Andrews, Detroit, single buggy.
Mrs. W. S. Getchel, Detroit, 2 hearth rugs.
Beecher, Rice & Ketchum, Detroit, collection paper hangings.
" " " furniture covering.
" " " silk brocatelle curtain stuffs.

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F. Gaines, Dearborn, 10 yards woollen cloth.
" " 10 yards satinett.
" " 1 woollen coverlet.
Lewis Emery, Hillsdale, pieces woollen cloth.
" " 3 woollen shawls.
" " 10 yards woollen cloth.
Mrs. W. A. Dennison, Troy, 10 yards woollen cloth.
" " pound woollen yarn.
" " pair woollen stockings and socks.
Mrs. J. Hendrickson, Detroit, rag carpet.
J. W. Tillman, Detroit, rosewood book case.
" " walnut eturge.
" " mahogany bedstead.
" " mahogany recumbent chair.
" " mahogany high backed revolving chair.
" " mahogany green plush rocking chair.
U. Durham, Redford, 2 pair woollen knit socks.
Mrs. Abram Lapham, Farmington, 10 yards rag carpet.
" " 1 double coverelet.
" " 2 single "
" " pair white woollen blankets.
" " " plaid " "
" " " knit socks, wool.
" " " " cotton stockings.
C. Beardsley, Troy, 1 pair worsted stockings.
" " cotton "
" " " woollen mittens.
Mrs. A. Whitehead, Pontiac, 2 white quilts.
E. Price, Detroit, doz. finished calf skins.
Mrs. T. F. Gerls, Troy, 10 yards rag carpet.
Holmes & Co., Detroit, Brussels lace square shawl.
" " " half square shawl.
" " " scarf.
E. W. Hersey, Oakland, 1 pair woollen blankets.
" " 1 woollen coverlet.
" " 10 yards woollen carpet.

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Hall, Raymond & Co., Detroit, royal medallion carpet.
" " Crosley's velvet "
" " Bigelow's brussels "
" " Thompsonville "
" " Smith's tapestry Abisson carpet.
" " mosaic dog rug.
" " " dove rug.
" " " table spread.
" " 2 sheep skin mats.

Mrs. Edward Chase, Rose, 10 yards grey woollen cloth.
" " pair woollen stockings.
" " pound woollen yarn.

A. C. Fisk, Coldwater, sulkey.

Miss Sarah Cowen, Grand Blanc, pair woollen stockings.

A. Quinn, Detroit, double carriage.

Amos Hicks, Ann Arbor, patch work quilt.

Geo. Winters, Detroit, case hats, caps and furs.

PAINTINGS, DRAWINGS, DAGUERREOTYPES, MUSICAL INSTRUMENTS, NEEDLE, SHELL AND WAX WORK.

Chas. Schlickum, Detroit, oil painting, castle and cathedral of Limburg, on the Lahn.

Chas. Schlickum, Detroit, castle Elz next the Moselle, drawn with pen and ink.

Albert Jordan, Detroit, prospective painting in water colors, of the Fort street church, Detroit.

Albert Jordan, Detroit, pencil drawing of elevation of State lunatic asylum, at Kalamazoo.

Albert Jordan, Detroit, pencil drawing of elevation of deaf and dumb asylum, at Flint.

Albert Jordan, Detroit, perspective drawing in pencil of hotel grounds.
" " plans, specifications, &c., for farm house, barn, buildings, &c.

J. Hendrickson, Detroit, basket wax fruit and flowers.

Hosted by Google

Bacon & Co., Detroit, scarlet embroidered boy's belt.
" " boy's suit.
" " Butterfly dress.
" " infant's cloak.
" " 2 silk hoods.
" " 3 pr. boots.
" " 3 carlsman blankets.
" " infant's hood.
Mrs. G. Marion, " 1 pencil drawing.
" " 1 "
Miss Wall, " 1 " bust of Byron.
" " 1 boquet of flowers, needle work.
Miss Bailey, " 1 case wax flowers and fruit.
Mrs. Dr. Hurd " 2 collars.
" " 1 neck band.
" " 2 bosoms.
" " 1 chemisette.
" " 1 pr. undersleeves.
Mrs. P. Klein, " 1 landscape painting in hair.
" " case of ornamental hair work.
" " boquet of hair.
" " boquet of artificial pearl.
Mrs. S. Weston, Detroit, 1 boquet artificial flowers.
Holmes & Co. 2 moire antique cloaks.
" " 1 cloth tambour.
" " 1 embroidered velvet mantle.
" " 1 infant's embroidered white merino cloak.
" " 1 " " hood.
" " 1 " trimmed white merino cloak.
" " 1 ladies' bridal hat.
" " " dress "
" " " " cap.
" " 4 " head dresses.
Miss Mary N. Nesbitt, Detroit, 1 piece fancy needle work, children & dog.
" " 1 piece fancy needle work, Christ leaving Jerusalem.
John Hoffner Detroit, 1 Revenue Cutter search.

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John Hoffner, Detroit, 1 pin cushion.
Mrs. N. Chope, Detroit, 3 shell boxes.
A. Bradish, " full length portrait of Gen. Cass.
Mrs. R. Z. Boyce, " 2 embroidered dresses.
" " 1 worked pocket handkerchief.
" " 1 worked night cap.
Chas. H. Lum, " landscape view in clove, Catskill mountains.
" " Scene—fight for the Standard.
Lewis T. Ives, " Michael Angelo, taken from bust in Rome.
" " Sleeping Cupid.
Franklin D. Ross, " 1 picture—finding of Moses.
Mary Stuart, Van Buren, pr. pillow cases.
" " 1 skirt,
" " 7 collars,
" " 1 pin cushion.
" " 7 strips embroidery.
Mrs. J. Starkweather, Ypsilanti, 1 Crochet lamp mat.
" " 1 pr. shell work cotton stockings.
" " 1 pr. linen shell work half hose.
" " 1 pr. silk ribbed "
" " 1 worked shirt.
Mrs. J. Starkweather, Ypsilanti, 1 worked collar.
" " 1 embroidered handkerchief.
" " 1 pair cotton hose.
" " 1 sofa pillow.
O. H. Moore, Kalamazoo, portrait of a house from nature.
" " " Gov. Ransom.
" " " Col. Curtenius.
" " " Mrs. Giddings.
Mrs. M. Gouch, Pontiac, 1 embroidered portfolio lined with blue.
" " 1 " " lemon color.
" " 1 " work box.
" " 1 " card box.
" " 1 " bag.
" " 1 net steel eyed bag.
" " 11 embroidered book marks.

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Miss E. Merrywether, Pontiac, 1 rustic church, made from specimen silver and copper from Lake Superior.

Miss E. Merrywether, Pontiac, 1 vase zephyr work, dahlias.

" " 1 pair net undersleeves.

" " 1 net collar.

" " 2 fire grate screens.

O. D. Moore, Detroit, 1 lot daguerreotypes.

Mrs. L. W. Patchin, Detroit, 1 wreath flowers, leather work.

" " 2 ornamental frames, leather work.

Miss Mary Canfield, " 1 picture, "the holy family," needle work.

Mrs. Thos. F. Abbott, " 1 worked ottoman cover.

Mrs. S. J. Simson, Syracuse, N. Y., 1 case wax fruit, flowers, and leather work.

Mrs. Henry Miller, Detroit, 1 worked skirt.

Mrs. H. Banta, Detroit, 1 pair worsted embroidered ottoman covers by a girl 13 years old.

Mrs. C. Picquette & Sister, Detroit, 1 frame of needle work.

Miss Carrie Sawyer, Detroit, 3 collars, 1 pair undersleeves, embroidered.

Sutton, Bros., Detroit, collection daguerreotypes.

Mrs. D. R. Paree, " one worked chair-back and seat.

" " one ottoman pattern.

Miss E. Dunn, Detroit, one fire screen.

Miss E. Dunn, Detroit, 1 raised stool pattern.

Mrs. J. L. Stout, Troy, 1 pin cushion.

Mrs. G. Netherslett, Detroit, 1 worked dress pattern.

Wm. L. Woodbridge, Detroit, 1 leather work box.

Mrs. G. W. Collins, Farmington, 1 pr. silk stockings.

Mrs. W. H. Gregory, Plymouth, basket ornamental flowers of paper.

A Bradish, Detroit, portrait Rev. Mr. Aldis.

G. H. Armstrong & Bro. " 3 cases embroidered regalia.

" " 1 case masonic jewels.

" " 1 case French hats conformateur.

Miss M. E. Wade, Clinton, frame worsted needle work.

Mrs. J. Hendrickson, Detroit, worsted lamp mat.

Miss E. T. Hendrickson, Detroit, masonic cushion.

" " opera cap.

Miss Mary H. Wooley, Detroit, portrait Benj. Franklin, worsted work.

Hosted by Google

Mrs. Mary Rofe, Detroit, basket artificial fruit.
Mrs. E. Marsh, Detroit, artificial shell box.
Mrs. J. P. Clark, Detroit, worsted embroidery King David.
Mrs. W. W. Murphy, Jonesville, worked collar.
Miss Mary H. Brown, Detroit, crochet tidy.
Miss Mary M. Williams, Detroit, 2 crochet doyleys.
Mrs. John Andrews, Detroit, 5 frames or boquets of paper ornamental flowers.
Mrs. John Andrews, Detroit, 1 vase of paper ornamental flowers.
" " 3 baskets of paper ornamental flowers.
Mrs. Hiram Rood, Pontiac, 1 what-not of leather work.
" " one fancy stand papier mache.
" " one papier mache daguerreotype frame.
" " one emb'd. under hdkf.
" " one worked collar.
" " one lamp mat.
" " one eturge.
" " one fine flower emb'ry, worsted work.
" " one crochet napkin.
Miss Lucy Beech, Pontiac, 1 mosaic chair.
" " 1 pr. woollen socks.
Geo. Beard, Jr., " 1 crayon head.
John Goodison, " "Lake Superior scenery."
" " 1 waterfall "Glen's falls."
" " 1 "scene on the Huron, Mich."
" " 1 fruit piece.
John Goodison, Detroit, Imitation Sienna marble, rosewood, porphyry, green marble, &c.
Mrs. John Goodison Detroit, pr. knit window curtains.
G. E. Hall, " collection Daguerreotypes.
Mrs. Michael Schwoop, Detroit, fancy cap.
Edward Antonissen, " young lady with flowers.
" " one "cupid."
" " " "departure from the rendezvous."
" " " "sentimental promenade."
" " " "cafe in the time of Louis XV."
" " " "entrance to a village near Zuydezee."

Hosted by Google

Mrs. L. Beecher, Detroit,	one emb'd. cloak.
" Detroit,	" silk emb'd. quilt.
Mrs. M. H. Webster, Detroit,	" emb'd skirt.
Miss Sarah C. Owen, Grand Blanc,	" emb'd. quilt
Mrs. L. Hollingworth, Moscow,	" worked quilt.
Mrs. M. A. Holloway, Adrian,	" 6 emb'd chair seats.
" "	" 6 emb'd rocking chair seats.
" "	" 6 emb'd misses, chair seats.
" "	2 emb'd ottomans
" "	2 tidies.
" "	1 divan.
" "	2 foot stools.
" "	1 satin toilet cushion.
" "	1 lamp mat.
" "	2 pin cushions.
Miss Louisa Beebe, Detroit,	needle work, sofa pillow.
Mrs. W. Hunter, Walled Lake,	worsted mat.
" "	cotton crochet tidy.
Mrs. M. Rogers, Ann Arbor,	knit bed spread.
Mrs. F. Choate, Jackson,	one crochet chair tidy.
E. Brown, Detroit,	6 bonnets, 1 black plain mantilla.
" "	1 Andalusian tan colored mantilla.
" "	2 head dresses, 2 mantillas.
" "	1 pr. blankets, 1 counterpane.
" "	1 damask table cover.
Miss W. Richardson, Pontiac.	4 water color paintings.

FRUIT, FLOWERS, AND VEGETABLES.

William Balls, Detroit, variety and quantity of cut flowers.
" Detroit, 12 long blood beets.
" Detroit, 3 heads drum head cabbage.
" Detroit, 12 long carrots.
" Detroit, 12 stalks celery.
" Detroit, 6 vegetable eggs.
" Detroit, half peck round tomatoes.

Hosted by Google

William Balls, Detroit, half peck large mammoth tomatoes.
" Detroit, 12 roots salsify.
Linus Cone, Troy, 12 roots salsify.
" Troy, 12 carrots.
" Troy, several varieties summer apples.
" Troy, variety large early bough.
" Troy, early strawberry.
Harvey Howard, Troy, 11 roots for cattle.
" Troy, 12 turnip rooted beets.
" Troy, 1 peck white turnips.
" Troy, 1 peck yellow turnips.
M. Winterhalter, Detroit, 2 squashes.
Chas. Boes, Detroit, 12 carrots.
Chas. Boes, Detroit, half peck tomatoes.
G. H. Walden, Redford, half peck yellow onions.
G. H. Walden, Redford, half peck red onions.
S. M. Bartlett, Lasalle, half peck Windsor beans.
W. F. Bramble, Royal Oak, 2 water melons.
W. F. Bramble, Royal Oak, 2 pumpkins.
Elizabeth Netherstell, Detroit, jar peaches.
" " jar plums.
" " plate Isabella grapes.
John Graham, Dearborn, 12 turnip rooted beets.
A. Wood, Livonia Centre, string and basket onions.
Samuel Rappleyee, Ridgeway, 12 apples, seedling variety.
" " 12 greenings.
Saml. Rappleyee, Ridgeway, 12 Montrous pepins.
" " 12 bull flowers.
" " ½ peck yellow onions.
" " ½ peck red onions.
" " ½ peck white onions.
" " ½ peck Lima beans.
S. Pitts, Detroit, basket peaches.
Jno. Ford, Detroit, collection vegetables.
" " 12 long blood beets.
" " 12 turnip rooted beets.
" " 6 heads cauliflower.

Hosted by Google

John Ford, Detroit, 6 heads cabbage.
" " 12 carrots.
" " 12 parsneps.
" " 6 vegetable eggs.
" " ½ peck yellow onions.
" " ½ peck red "
" " 3 autumnal marrow squashes.
" " ½ peck tomatoes.
" " ½ peck Lima beans.
" " ½ peck sweet potatoes.
" " 6 stalks rhubarb.
" " 2 watermelons.
" " 4 nutmeg melons.
" " 12 dahlias.
" " collection verbenas.
" " flat boquet.
" " round boquet.
G. R. Hurd, Monroe, ½ peck white onions.
" " ½ peck yellow "
" " ½ peck red "
" " 6 vegetable eggs.
" " 12 parsneps.
Prince Bennett, Ypsilanti, 12 quinces.
" " 12 Rhode Island greenings.
Prince Bennett, Ypsilanti, 12 yellow bell flowers.
" " 12 rhamboa.
" " 12 holland pippins.
" " 6 white gill flowers.
" " 2 watermelons.
Frederic Smith, Plymouth, 1 peck quinces.
" " 20 varieties winter apples.
" " 5 varieties fall apples.
" " doz. single variety winter apples.
" " peck silver skin onions.
" " 6 pecks different specimens potatoes.
O. S. Allen, Detroit, half dozen seedling peeches.
O. S. Allen, Detroit, half dozen quince pear.

Hosted by Google

J. S. Tibbitts, Plymouth, peck early June potatoes.
" Plymouth, peck ladies' finger potatoes.
" Plymouth, 12 varieties winter apples.
S. M. Bartlett, Lasalle, ¼ acre carrots.
" Lasalle, ¼ acre mangel wurtzel.
" Lasalle, ½ acre ruta baga turnips.
" Lasalle, ¼ acre white flat turnips.
Mrs. Winder, Detroit, 1 dozen quinces.
E. J. Bonine & East, Vandalia, variety of apples.
E. J. Bonine & East, Vandalia, variety of pears.
Wm. Maiden, Plank Road, 9 varieties winter apples.
" " peck early English white potatoes.
" " peck fall potatoes.
" " peck kidney potatoes.
Albert Terry, Rochester, 21 varieties apples.
" " 11 bushels apples.
" " 2 bushels single variety.
F. Raymond, Detroit, 2 varieties foreign grapes.
Bonine & East, Vandalia, ½ bushel sweet potatoes.
Francis Beebe, Detroit, 3 pears.
Wm. Smael, Detroit, greatest variety cut flowers.
" " 12 dissimilar blooms, dahlias.
Wm. Smael, Detroit, single dahlia.
" " collection green house plants.
" " round hand boquets.
" " 12 large blood beets.
" " 6 heads cauliflower.
" " 12 carrots.
" " 12 parsneps.
" " 12 stalks celery.
" " 12 roots salsify.
" " 1 peck sweet potatoes.
Mrs. Geo. Tibbitts, Southfield, variety winter apples.
" " 12 specimens autumn apples.
" " 12 " summer apples.
" " basket cut flowers.
F. Wetmore Detroit, plate melocoton peaches.

Hosted by Google

Alex. Melvin, Detroit,	plate pears, Flemish beauty.
" "	plate plums, St. Catharine.
Luther Lapham, Farmington,	3 kinds Rhode Island greenings.
" "	1 peck gill flower.
" "	1 dozen Falman sweetings.
" "	1 dozen 20 oz. pippins.
" "	variety fall & winter apples.
" "	1 doz. mangel wurtzel beets.
" "	1 doz. turnip rooted beet.
" "	1 doz. carrots.
" "	1 doz. parsneps.
E. R. Post, Detroit,	2 mammoth squashes,
" "	4 summer scollop squashes.
" "	4 Boston marrow squashes.
" "	6 water melons, different varieties.
" "	3 Egyptain musk melons.
" "	2 Egyptain nutmeg melons.
" "	1 Egyptain cucumber.
" "	3 common cucumbers.
" "	2 heads drum head cabbage.
" "	doz. vegetable oysters.
Chas. Lee, Sen., Detroit,	variety pears.
" "	variety seedling peaches.
" "	½ doz. martemas.
" "	West India gilkins.
" "	quantity asparagus.
Hubbard & Davis, Detroit,	3 vegetable marrow squashes.
" "	1 bunch radishes.
" "	3 pumpkins.
" "	2 hybrid squashes.
" "	1 doz stalks evegreen sweet corn.
" "	6 stalks Wyatt's Victoria rhubarb.
" "	3 Long Island Watermelons.
" "	3 citron watermelons.
" "	3 Stelman's green fleshed musk melons.
" "	4 nutmeg melons.
" "	1 bouquet pyramid, indigenous.

Hosted by Google

Hubbard & Davis, Detroit, 1 boquet verbenas.
" " 1 " mixed flowers.
" " assortment cut verbenas.
" " " cut flowers.
" " " China astors.
" " " double balsams.
" " " plums.
" " " roses, geant de battelle, noisette.
" " 12 Portugal quinces.
" " 12 varieties pears.
" " 21 " apples.
Peter Stouch, " dish white water grapes.
J. L. Stout, " peck quinces,
" " peck potatoes.
W. H. Lester, Utica, 12 blood beets.
" " 12 turnip rooted beets.
" " 6 head cabbages.
" " 12 carrots.
W. H. Lester, Utica, 12 parsneps.
" " ½ peck red onions.
" " 3 crook-necked squashes.
" " peck yellow turnips.
" " peck white turnips.
" " 7 varieties roots for cattle.
" " 12 ears yellow corn.
" " 12 ears dent corn.
J. M. Sanford, Grass Lake, 20 varieties winter apples.
" " 12 specimens " "
" " 3 varieties fall apples.
" " 12 specimens " single variety.
H. Weed, Pontiac, 12 peaches.
J. T. Wilson, Jackson, 5 varieties seedling peaches.
" " 1 variety improved peaches.
" " 10 varieties winter apples.
" " 3 varieties fall apples.
" " 3 varieties summer apples.
" " 1 variety plums.

Hosted by Google

J. T. Wilson, Jackson, 4 varieties pears.
E. D. Lay, Ypsilanti, 12 summer apples, single variety.
" " 12 fall apples, single variety.
" " 4 varieties summer apples.
" " 31 varieties fall apples.
" " 55 varieties winter apples.
Mrs. G. W. Collins, Farmington, 12 Bartlett pears.
Daniel Cook, Jackson, 2 oranges, native growth.
" " 37 varieties winter apples, 3 each.
" " 12 varieties summer apples, 3 each.
" " 10 specimens Crawford's Melocoton.
" " 1 peck "
" " 6 specimens nectarines, 3 varieties.
" " 8 varieties plums, 6 of each.
" " 10 yellow egg plums.
" " 12 specimens summer apples.
L. L. Beufeit, Detroit, 3 crook-neck squashes.
B. Pierson, Livonia Centre, 2 varieties winter apples.
" " 2 varieties fall apples.
Mrs. J. Palmer, Detroit, dish Catawba grapes.
" " dish Isabella grapes.
" " dish quinces.
S. L. Millis, Pontiac, variety 20 oz. pippin.
" " variety quinces.
" " variety peaches.
James Dougall, Windsor, C. W., 33 varieties pears.
" " 10 varieties peaches.
" " 6 varieties nectarines.
" " 2 varieties plums.
H. A. Young, Detroit, 6 cabbages.
" " 12 beets.
" " 12 carrots.
" " 1 peck potatoes.
" " ½ peck onions.
" " collection pears.
Wm. Adair, Detroit, "
" " 2 water melons.

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Wm. Adair, Detroit, 4 nutmeg melons.
" " 6 vegetable eggs.
Geo. Crabb, Detroit, variety coxcombs.
" " 12 carrots.
Thomas Smith, Detroit, 6 cabbages.
" " 6 long gore squash.
W. A. Bramble, Royal Oak, 1 squash.
Samuel Rapplegee, Ridgeway, 1 peck potatoes.
" " 1 peck table potatoes.
Wm. Adair, Detroit, collection dahlias.
" " 12 dahlias.
" " single specimen dahlia.
" " collection verbenas.
" " collection roses.
" " 1 boquet.
Thos. Blocket, Roseville, peck potatoes.
" " peck seedling peaches.
" " 3 citron melons.
David Smalley, Concord, 2 baskets fine peaches.
Geo. P. Morse, Troy, 12 specimens autumn apples.
" " 12 " greening winter.
" " 12 " spitzenburghs.
J. Hendrickson, Detroit, 1 plate of grapes.
E. P. F. Bradner, Redford, 12 varieties phloxes.
J. P. Clark, Detroit, 3 varieties sweet corn.
" " 1 " blood beet.
" " 1 " white sugar beet.
" " 3 stalks red pepper.
" " 1 variety pear.
J. L. Stout, Troy, 1 peck quinces.
Hiram Walker, Detroit, collection vegetables.
" " 4 long green squashes.
" " 1 peck peach blow potatoes.
" " 1 quart red eye beans.
" " 1 quart snap beans.
" " 2 quarts early six weeks beans.
" " 4 quarts Lima beans.

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Hiram Walker, Detroit, ½ quart gherkins.
" " 4 bunches vegetable oysters.
" " 1 doz pure blood beets.
" " 2 bunches turnip rooted beets.
" " 4 cocoa-nut squashes.
" " 3 drum-head cabbages.
" " 3 red Dutch "
" " 3 hanks white Portugal onions.
" " 5 Boston marrow squashes.
" " 4 autumnal marrow squashes.
" " 6 purple egg-plants.
" " 1 plate Coe's golden drop plums.
Hiram Walker, Detroit, plate Isabella grapes.
" " plate white Doyenne pears.
" " plate Vicar of Wakefield pears.
" " plate large orange peach.
" " 3 plates red cheek melocoton peach.
" " 2 plates incomparable peach.
" " 1 plate late admirable peach.
" " 1 plate Crawford's late peach.
" " 1 peck orange quinces.
" " 1 plate No. 3 pippin apples.
" " Collection of fruit as above mentioned.
Miss M. F. Evanson, Detroit, stand cut flowers.
John Reno, Detroit, variety damask plums.
D. O. & W. S. Penfield, Detroit, 1 peck peaches.
C. Beardsley, Troy, 14 onions.
Hubbard & Davis, Detroit, 2 bouquets indigenous flowers.
T. F. Gerls, Troy, 1 peck potatoes.
N. Smith, Detroit, plate peaches.
N. Smith, Detroit, ½ dozen sweet potatoes.
N. S. Gilbert, Port Huron, 10 varieties pears.
N. S. Gilbert, Port Huron, 1 plate plums.
Wm. Balls, Detroit, bunch parsneps.
" " 4 quarts Lima beans.
" " 1 flat dahlia boquet.
" " 1 round boquet mixed flowers.

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Wm. Balls, Detroit, varieties phloxes.
N. D. Horton, Port Huron, 2 stems of grapes.
D. Boynton, Detroit, 15 varieties winter apples.
" " ½ bushel early white June potatoes.
" " collection of early turnip and blood beets.
B. Phelps, Pontiac, 1 peck quinces.
Benj. Lee, Detroit, bunch tomatoes.
O. G. Angell, Detroit, 6 specimens autumn pears.
" " collection peaches.
" " collection plums.
O. G. Angell, Detroit, dish native grapes.
" " collection foreign grapes.
" " peck sweet potatoes.
" " 30 varieties verbenas.
Wm. Smael, Detroit, collection dahlias.
H. B. Chapman, Hillsdale, peck mercer potatoes.
" " ½ peck flour potatoes.
" " ½ peck silver skin onions.
" " 2 white seed watermelons.
" " 4 pine apple melons.
" " 1 sweet pumpkin.
" " 6 blue Holland plums.
" " 6 elfry plums.
" " 3 Peter's yellow gage plums.
E. Cross, Redford, 1 bushel potatoes.
E. Cross, Redford, 3 pumpkins.
M. Winterhalter, Detroit, 2 squashes.
J. L. Brown, Farmington, 35 varieties winter apples.
" " 1 basket indigenous flowers.
" " 12 single varieties winter apples.
Henry Waldron, Pontiac, 1 single specimen seedling apple.
S. Bowerman, Detroit, 100 varieties apples.
Mrs. Chas. V. Badock, Southfield, basket flowers.
Andrew Bradner, Dearborn, ½ dozen seedling peaches.
Hubbard & Davis, Detroit, 1 seedling verbena.
J. R. Monroe, Paw Paw, 8 Jefferson peaches.
Miss McIntosh, Detroit, bunch green Swiss grapes.

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Miss McIntosh, Detroit, bunch white Chalesse grapes.
" " ½ dozen egg plums.
H. Castle, Greeefield, 2 Spanish water melons.
G. Purdy, Dearborn, 3 red heart peaches.
Wm. Harsha, Detroit, 1 plate grapes.
J. Robers, Detroit, 3 varieties foreign grapes.
E. T. Owen, Detroit, 3 bunches white grapes.
H. Lee, Southfield, peck sweet potatoes.

GRAIN, FLOUR, SEED, BREAD, AND FIELD CROPS.

Wm. Maiden, Plank Road, 12 ears yellow seed corn.
" " 12 ears dent.
S. M. Bartlett, Lasalle, 3 bushels early York beans.
" " 2 bush. corn, yellow Indian dent.
Owens & Barns, Detroit, box soda crackers.
" " box Boston crackers.
" " box butter crackers.
" " box lemon crackers.
" " box ship bread.
J. H. Bagg, " bundle China wheat.
Samuel Rappleyee, Ridgeway, 12 ears dent corn.
Munson Hurd, Monroe, 12 ears yellow dent corn.
John Ford, Detroit, 12 ears yellow dent corn.
Pierce Bennett, Ypsilanti, 2 bush. white marrow-fat peas.
" " 2 bush. white beans.
Fred. Smith, Plymouth, 12 ears corn.
" " 12 eras white flint.
" " 12 ears yellow corn.
" " 12 ears white dent.
E. J. Bonine & East, Vandalia, 12 bush. yellow and white corn.
D. M. Uhl, Ypsilanti, bag white oats.
Stephen Lapham, Farmington, peck red blaze corn.
J. L. Stout, Troy, bush. timothy seed.
Owens & Barns, Detroit, loaf fancy bread.

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Edward Mason, Dearborn, specimen rutabaga.
Francis Leslie, " bush. timothy grass seed.
J. T. Wilson, Jackson, parcel corn on the stock, grown on marsh.
M. J. James, Birmingham, 24 ears of corn, yellow dent.
J. L. Stout, Troy, 1 bush. timothy seed.
Edw. Gare, Redford, 1 bush. Egyptian black barley.
John Gould, Dearborn, 1 bush. flax seed.
John Kirk, Detroit, 2 bush. white Infield oats.
" " 2 loaves brewer's yeast bread.
J. J. Joyce, Plymouth, 4 stalks of corn.
B. C. Green, Southfield, bag white oats.
" " bushel grass seed.
" " bag peas.
" " bag barley.
Mrs. H. Walker, Detroit, basket bread and biscuit.
Clark Beardsley, Troy, basket corn.
Francis Leslie, Dearborn, cake of corn bread.
E. H. Cressey, Troy, 2 bushels white oats.
D. Boynton, Detroit, a lot of orange carrots.
H. B. Chapman, Hillsdale, 2 bushels Soules wheat.
" " 2 bushels beans.
" " 2 bushels peas.
" " 2 bushels Dutch oats.
" " 2 bushels dent corn,
" " 1 dozen dent corn.
" " 1 dozen red pop corn.
" " 1 dozen white pop corn.
G. P. Thomas, Clarkston, 2 bushels Soules wheat.

MISCELLANEOUS ARTICLES.

James J. Butler, Cincinnati, O., bottles Butler's mercantile writing fluid.
J. V. Reuhle, Detroit, lot fancy soaps.
T. P. Mather & Co., " case fancy glass and china ware.
F. G. Hannibal " atmospheric saw strainer.

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Wheeler & Whitney, Detroit, dozen patent zinc wash boards.
E. Wynkoop, " self-heating smoothing iron.
Edward P. Earle, " 1 show case.
Jno. McCurdy, " 1 portable steam engine.
" " 1 shingle machine.
" " 3 doz. shingles.
J. R. Cunningham, " model steam boat.
A. McKibbin, & Co. " 2 pearl mantles.
" " 1 hotel water cooler.
" " 1 railroad water cooler.
" " dinner set of planished ware.
" " brass coal scuttle.
" " carpenter's plow.
O. Goldsmith, " case segars and tobacco.
Benj. Lee, " jar steam refined molasses candy.
Wm. Phelps & Bro., " case confectionary.
" " case containing toys and fancy goods.
C. G. Blindbury, " lot dressed lumber, flooring, siding and ceiling.
Thos. R. Bailey, Lockport, N. Y., Bailey's turning lathe.
" " " Bailey's bed-rail machine.
" " " Bailey's bed-pin machine.
William White, Newport, bottle amber currant wine.
" " bottle white currant wine.
" " bottle rose currant wine.
" " bottle bishop currant wine, made in 1844.
T. Dewel, Detroit, 1 match split machine.
O. Bellows & Co., Detroit, drab Mackintosh coat, rubber.
" " drab light coat, rubber.
" " black heavy coat, rubber.
O. Bellows, & Co., Detroit. black heavy cloak, rubber.
" " piano cover, rubber.
" " pair pantaloons, rubber.
" " pair leggins, rubber.
" " horse cover, with hood, rubber.
" " bed fan, rubber.
" " hospital cushion, rubber.

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O. Bellows & Co., Detroit, air pillow, rubber.
John Crongeyer, " cage parrots.
" " 1 Mexican goldfinch.
Geo. H. Buck, " carved eagle in wood.
John Petit Benoit, " 1 fancy bird cage.
Wm. Wingut, " 1 target rifle.
" " 1 swivel rifle.
" " 1 double gun, shot and rifle.
" " 1 Colt's six inch revolver and implements.
" " 1 Warner's six inch revolver and implements.
" " 1 Maynard's 3 inch revolver and implements.
" " 3 powder flasks.
" " 2 powder horns.
" " 5 dram bottles.
" " 2 gun locks.
" " 1 razor.
" " 1 pr. scissors.
" " 2 boxes caps.
" " 4 pocket compasses.
" " 1 cap pinner.
" " 4 dog collars & chains.
" " 1 oil bottle.
" " 6 pocket knives.
" " 2 dirk knives.
" " 3 cone wrenches.
" " 2 dog calls.
" " 3 game bags.
" " 1 double gun & case.

O. A. Crosby, Huntingdon, Ohio, collection patent door fastenings.
John Stinson, Bristol, Conn., collection knife & scissor sharpeners.
T. M. Cook, Detroit, case Sunday school libraries.

A. McKibben & Co., Detroit, 1 extra grate.
" " 1 letter press.
" " 2 setts fire irons, with stand.
" " 1 Hobb's wall door lock.
" " 12 apple parers.
" " 1 book shelf for church slip.

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Norman Starr, Royal Oak, set of buggy skein thimbles.
M. Howard Webster, Detroit, school house and rail road station bells.
E. W. Ingersoll, Livonia, half bush. millet.
Wm. Jenninson, ag't W. J. Hickok, Detroit, patent lumber counter.
Chas. Piquette, Detroit, case gold pens.
J. B. Leavenworth, " case silver spoons.
Wm. Gooding, " row boat.
Palmer & Whipple, " 5 super royal ledgers.
Palmer & Whipple, " 5 specimens book binding.
Jas. R. Cunningham, " 1 yacht.
Horace Welch, Ypsilanti, black silk dress.
D. E. Rice, Detroit, Macomber's patent straw cutter.
" " wood turning lath.
" " 2 circular saw arbors.
Wm. Fervins, " Fervins's instantaneous hair dye.
Rufus Brown, " 2 rolls vulcanized rubber belting.
" " 7 packages steam packing.
" " 2 coils vulcanized rubber hose.
" " 1 piece brake pipe.
" " 1 roll rubber soling.
" " 1 fire bucket.
" " 1 coil round belting.
" " 1 set billiard cushions,
" " 1 roll leather belting.
A. S. Sherwood, " cased Sherwood's imp'd lightning conductors.
Henry Metz, " 6000 feet composition roofing.
Edward Wilder, Detroit, set of gold plated table cutlery.
" " 1 set silver plated table cutlery.
" " 1 set silver handled table cutlery.
" " 1 set papier mache "
" " 1 carpenter's brace, silver plated.
" " lot mechanic's tools in show case.
" " show case pocket cutlery.
M. H. Webster, " "Herring's" fire and burglar proof safe.
F. Buhl & Co., " case manufactured furs.
O. Bellows, & Co., Detroit, 3 India rubber table covers.
Rev. Z. Cook, Farmington, case stuffed birds.

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H. M. Anthony, Cleveland, O., cement water pipe.
" " specimen drain brick.
" " specimen common brick.
Saml. L. Millis, Pontiac, 2 jars puzzles.
" " 2 bottles elder wine.
" " 1 wild grape.
Datis J. Pencille, Detroit, specimen penmanship.
D. O. & W. S. Penfield, Detroit, 6 cattle ties.
" " 1 furnace.
" " 1 portable forge.
" " 1 pair hinges.
" " 3 water rams.
" " 1 cast iron pump.
" " 1 doz. axe handles.
" " 1 wood bowl.
" " 8 feet galvanized iron pump tube.
C. & P. Mellus, " 5 foot circular saw.
" " 4½ foot circular saw.
" " 4 foot circular saw.
" " 2 foot circular saw.
Wm. Bradley, Jr., Royal Oak, 2 fish nets.
Saml. Rappleyee, Ridgeway, bottle elder wine.
D. O. & W. S. Penfield, Detroit, iron well curb.
" " wood "
D. O. & W. S. Penfield, Detroit, 25 rods wire fence for farm use 6 inch mesh.
D. O. & W. S. Penfield, Detroit, 25 rods wire fence for farm use 3 inch mesh.
James Whitcomb, Detroit, 1 improved railway safety switch, model.
T. Dewel, Detroit, apple paring, coring, and slicing machine.
Richmonds & Backus, Detroit, railroad statistic book.
James Fawkes, Detroit, 2 team collars.
Wm. Clay, Detroit, 1 Trichomaoraton wig.
" " 1 toupee.
Mrs. H. Walker, Detroit, 1 bottle tomato catsup.
Mrs. H. Walker, Detroit, 1 bottle ginger cordial.
Philip Thurber, " specimens iron and iron ore.

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J. Wagner, Detroit, pair snow shoes.
Mrs. W. F. Cole, " bottle mushroom catsup.
" " bottle tomato catsup.
" " bottle peach preserves.
" " bottle black currant preserves.
" " bottle blackberry preserves.
" " bottle tomato preserves.
Cullen Brown, Detroit, 2 bottles wine 5 and 4 years old.
E. W. Hersey, Oakland, bottle white currant wine.
" " bottle red currant wine.
" " bottle cherry wine.
F. O. Wilder & Bro., Detroit, 2 melodeons.
J. S. Farrand, Detroit, 2 kegs white lead in oil.
" " 2 bottles cologne.
A. McKibben & Co., Detroit, 1 Empire State cook stove.
" " 1 radiator.
" " 1 regulator.
Dr. Rudolph, Detroit, large French canaries.
J. R. Grout, " mass native copper from Minnesota mine, weighing 3796 lbs.
J. R. Grout, Detroit, specimens copper veinstone from Minnesota mines.
" " jar No. 1 copper stamps.
" " jar No. 2 " "
" " jar No. 3 " "
" " jar No. 4 " "
J. R. Grout, Detroit, 6 ingots refined copper, manufactured.
" " specimen uncleaned slag, "
" " specimen cleaned slag, "
Paul Wolff, " spring mattrass.
Perry & Beardsley, Warsaw, N. Y., patent rope machine.
Philip J. Franz, Detroit, 1 fish net.
" " 1 water proof leather hose.
" " 1 model canvas roofed house.
" " specimen patent roofing.
" " 2 specimens plaster paris work.
" " 6 doz. compound patent blacking.
John J. Garretson, Salem, Iowa, hand power loom.

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A. Valentine, Detroit, Tom Thumb's breast pin.
O. Leslie, Attica, Ind., self-adjusting saw sharpener.
" " double tooth saw.
" " self-acting steam boiler cleaner.
Hubbard & Davis, Detroit, bottle currant wine.
H. Degraff, Detroit, 1 wooden chain.
O. S. Allen, Detroit, cage Canary birds.
J. Hendrickson, Detroit, bottle wine.
Geo. E. Pomeroy & Co., Detroit, 2 frames, specimens of printing.

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REPORTS

OF THE VIEWING COMMITTEES, 1854.

CATTLE.—DIVISION A.

CLASS I. & III.—SHORT HORNS AND HEREFORDS.

Your committee have the honor to report, that the show of Short Horns, exceeded in number and perfection of form, any former exhibition in this State, and regret that the premium list would not allow prizes to many other meritorious animals. No Herefords were on the ground.

No. 235. A. S. & M. L. Brooks, Northville, Mich., best bull over 5 years old, 1st premium,.....Silver Medal and $12 00

No. 312. Leman Strong, Litchfield, Mich., 2nd best bull, over 5 years old,.....2nd premium, 12 00

No. 84. S. W. Dexter, Dexter, Mich., 3d best bull, over 5 years old, 3d premium,..... 10 00

No. 4. D. M. Uhl, Ypsilanti, Mich., best bull, over 3 years old, 1st premium,.....Silver Medal and 10 00

No. 58. Gilbert Longstaff, Macomb, Mich., 2d best bull, over 3 years old, 2d premium,..... 10 00

No. 179. Cyrus Fuller, Plymouth, Mich., one short horn bull, 4 years old, 1st premium awarded last year,.....Diploma.

No. 129. Samuel Wormley, Marshall, Mich., best bull, 2 years old, 1st premium,.....Silver Medal and 10 00

No. 165. H. Arnold, Kalamazoo, Mich., 2d best bull, 2 years old, 2d premium,..... 10 00

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No. 122. L. J. Thomson, Hillsdale, Mich., 3d best bull, 2 years old, 3d premium, ... $8 00

No. 69. John Starkweather, Ypsilanti, Mich., best bull, 1 year old, 1st prem., ... Bronze Medal and 8 00

No. 317. S. A. Randall, Brooklyn, Mich, best bull calf, Transactions and 6 00

No. 7. D. M. Uhl, Ypsilanti, Mich., 2d best bull calf, 2d pre'm. 5 00

No. 76. Luther Shaw, Romeo, Mich., 3d best bull calf, 3d pre'm. 4 00

No. 172. Silas Sly, Plymouth, Mich., best cow, over 5 years old, 1st premium, ... Silver Medal and 10 00

No. 1. D. M. Uhl, Ypsilanti, Mich., 2d best cow, over 5 years old, 2d premium, ... 10 00

No. 327. D. C. Blair, Tipton, Ohio, 3d best cow, over 5 years old, 3d premium, ... 8 00

No. 139. Z. Tillotson, Marshall, Mich., best cow, over 3 years old, 1st premium, ... Silver Medal and 10 00

No. 166. H. Arnold, Kalamazoo, Mich., 2d best cow, over 3 years old, 2d premium, ... 10 00

No. 236. M. L. Brooks, Northville, Mich., 3d best cow, over 3 years old, 3d premium, ... 8 00

No. 140. Z. Tillotson, Marshall, best 2 year old heifer, 1st premium, ... Bronze Medal and 8 00

No. 237. M. L. Brooks, Northville, 2nd best 2 year old heifer, 2d prem., ... 8 00

No. 239. M. L. Brooks, Northville, 3rd best 2 year old heifer, 3d prem., ... 7 00

No. 316. S. A. Randall, Brooklyn, best 1 year old heifer, 1st prem., ... Transactions and 7 00

No. 5. D. M. Uhl, Ypsilanti, 2nd best 1 year old heifer, 2nd prem., ... 6 00

No. 180. Cyrus Fuller, Plymouth, 3rd best 1 year old heifer, 3rd prem., ... 5 00

No. 174. Silas Sly, Plymouth, best heifer calf, 1st prem., ... 6 00

No. 151. C. A. Jeffries, Dexter, 2nd best heifer calf, 2nd prem., 5 00

No. 36. S. W. Dexter, Dexter, 3rd best heifer calf, 3rd prem., 4 00

D. W. PALMER,
HENRY BOGART.
Committee.

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CLASS II. & IV.—DEVONS AND AYRESHIRES.

No. 95. D. Kimball, Pontiac, Devon bull, 6 years old, 1st premium, ... silver medal and $12 00

No. 43. S. M. Bartlett, Lasalle, Devon bull, 7 years old, 2d premium, ... 12 00

No. 324. O. W. & G. P. Bennett, Jackson, Devon bull, 5 years old, 3d premium, ... 10 00

No. 289. H. B. Eldred, Napoleon, Devon bull, 4 years old, 1st premium, ... silver medal and 10 00

No. 62. J. W. Childs, Paint Creek, Devon bull, 4 years old, 2d premium, ... 10 00

No. 90. P. K. Leach, Utica, Devon bull, 4 years old, 3d premium, ... 8 00

No. 293. E. M. Crippen, Coldwater, Devon bull, 2 years old, 1st premium, ... silver medal and 10 00

No. 206. H. Eggleston, Litchfield, Devon bull, 2 years old, 2d premium, ... 10 00

No. 305. E. M. Crippen, Coldwater, Devon bull calf, 5 months old, 1st premium, ... Transactions and 6 00

No. 303. E. M. Crippen, Coldwater, Devon bull calf, 5 months old, 2d premium, ... 5 00

No. 304. E. M. Crippen, Coldwater, Devon bull calf, 4 months old, 3d premium, ... 4 00

No. 298. E. M. Crippen, Coldwater, Devon cow, 7 years old, 1st premium, ... silver medal and 10 00

No. 300. E. M. Crippen, Coldwater, Devon cow, 5 years old, 2d premium, ... 10 00

No. 296. E. M. Crippen, Coldwater, Devon cow, 6 years old, 3d premium, ... 8 00

No. 110. W. H. Miller, Warsaw, Devon cow, 4 years old, 1st premium, ... silver medal and 10 00

No. 297. E. M. Crippen, Coldwater, Devon cow, 4 years old, 2d premium, ... 10 00

No. 294. E. M. Crippen, Coldwater, Devon cow, 4 years old, 3d premium, ... 8 00

No. 301. E. M. Crippen, Coldwater, Devon heifer, 2 years old, 1st premium, ... bronze medal and 8 00

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No. 214. E. L. Merriman, Jackson, Devon heifer, 1 year old, 1st premium,.....Transactions and $7 00

No. 109. W. H. Miller, Moscow, Devon heifer, 1 year old, 2d premium,..... 6 00

No. 311. E. M. Crippen, Coldwater, Devon heifer calf, 2 months old, 1st premium,..... 6 00

No. 309. E. M. Crippen, Coldwater, Devon heifer calf, 5 mo's. old, 2d premium,..... 5 00

No. 310. E. M. Crippen, Coldwater, Devon heifer calf, 4 mo's. old, 3d premium,..... 4 00

No. 96. H. W. Castle, Corunna, Ayreshire bull, 2 years old, 1st premium,.....Silver Medal and 10 00

The Committee recommend "108," as a fine cow, but could not award a premium, as we did not consider her pure Devon.

GEO. GRAHAM,
ALEX. PATON,
SILAS SLY,
Committee.

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CLASS V. & VII.—CROSS OF BLOOD CATTLE—NATIVES.

No. 204. Wm. Gass, Macomb, bull 4 years old, 1st premium,.....Silver Medal and $12 00

No. 61. S. P. Chamberlin, Romeo, bull 3 years old, 1st premium,.....Silver Medal and 12 00

No. 134. C. L. Treadwell, Hudson, bull 2 years old, 1st premium,.....Silver Medal and 10 00

No. 347. Geo. Carman, Sturgis, bull 2 years old, 2d premium, 10 00

No. 339. Oliver Hampton, Hickory Grove, bull 2 years old, 3d prem.,..... 8 00

No. 111. W. H. Miller, Moscow, bull calf, 5 months old, 1st premium,.....Transactions and 6 00

No. 102. J. R. Tibbitts, Southfield, bull 1 year old, 3d prem., 7 00

No. 128. A. Y. Moore, Schoolcraft, cow, 7 years old, 1st premium,.....Silver Medal and 12 00

No. 205. Wm. Gass, Macomb, cow 6 years old, 2d premium,.. 12 00

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No. 285. J. B. Arms, Dexter, cow 5 years old, prem., ... $12 00
No. 152. C. A. Jeffries, Dexter, cow 3 years old, 1st premium, Silver Medal and 10 00
No. 286. J. B. Arms, Dexter, cow 3 years old, 2d prem., ... 10 00
No. 330. D. C. Blair, Tipton, heifer, 2 years old 1st premium, Bronze Medal and 8 00
No. 153. C. A. Jeffries, Dexter, heifer, 1 year old, 1st premium, Transactions and 7 00
No. 74. Jno. Starkweather, Ypsilanti, heifer, 1 year old, 2d prem., ... 6 00
No. 154. C. A. Jeffries, Dexter, calf, 7 months old, 1st prem., Transactions and 6 00
No. 287. J. B. Arms, Dexter, calf, 10 weeks old, 2d premium, 5 00
No. 272. W. H. Lester, Utica, calf, 7 months old, 3d premium, 4 00
No. 87. B. Thomson, Detroit, Native cow, 5 years old, 1st premium, ... 10 00
No. 224. A. H. Otis, Greenfield, Native cow, 7 years old, 2d prem., ... 10 00
No. 225. A. H. Otis, Greenfield, Native cow, 7 years old, 3d prem., ... 3 00
No. 88. B. Thomson, Detroit, heifer, 18 months old, 1st premium, ... Transactions and 7 00
No. 226. A. H. Otis, Greenfield, calf, 14 weeks old, 1st prem., 6 00

WM. H. MILLER,
JAMES BLACKMAR,
WALKER,
Committee.

CLASS VI.—CROSS BETWEEN BLOOD AND NATIVE.

The committee on cross of Blood and Native cattle, having discharged the duties assigned them, respectfully submit the following report:

No. 89. Jno. Price, Romeo, bull 3 years old, 1st premium, Silver Medal and $10 00
No. 265. F. Abby, Armada, bull 3 years old, 2nd premium, .. 10 00

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No. 278. Leonard Lee, Armada, bull 2 years old, 1st prem., Silver Medal and $10 00
No. 253. C. A. Green, Troy, bull 2 years old, 3d premium, ... 8 00
No. 254. C. A. Green, Troy, bull 1 year old, 1st prem., bronze Medal and 8 00
No. 188. E. Hazen, Novi, bull 1 year old, 2d premium, ... 8 00
No. 332. D. C. Blair, Tipton, bull 1 year old, 3d " 7 00
No. 72. Jno. Starkweather, Ypsilanti, bull calf, 1st premium, Transactions and 6 00
No. 92. P. K. Leach, Utica, bull calf, 2d premium, ... 5 00
No. 326. O. W. & G. P. Bennett, Jackson, bull calf, 3d prem., . 4 00
No. 8. D. M. Uhl, Ypsilanti, cow 5 years old, 1st premium, Silver Medal and 10 00
No. 9. D. M. Uhl, Ypsilanti, cow 5 years old, 2d premium, ... 10 00
No. 94. Sam'l Casey, Ann Arbor, cow 5 years old, 3d prem., . 8 00
No. 91. P. K. Leach, Utica, cow 3 years old, 1st premium, Silver Medal and 10 00
No. 342. Geo. Clark, Lapeer, cow 3 years old, 2d premium, .. 10 00
No. 81. J. S. Tibbitts, Plymouth, cow 3 years old, 3d " .. 8 00
No. 12. D. M. Uhl, Ypsilanti, heifer 2 years old, 1st premium, Bronze Medal and 8 00
No. 11. D. M. Uhl, Ypsilanti, heifer 2 years old, 2d premium, . 8 00
No. 82. J. S. Tibbitts, Plymouth, heifer 2 years old, 3d prem., 7 00
No. 14. D. M. Uhl, Ypsilanti, heifer 1 year old, 1st premium, Transactions and 7 00
No. 13. D. M. Uhl, Ypsilanti, heifer 1 year old, 2d premium, .. 6 00
No. 318. S. A. Randall, Brooklyn, heifer 1 year old, 3d prem., 5 00
No. 137. J. L. Stout, Troy, heifer calf, 1st premium, ... 6 00
No. 333. D. C. Blair, Tipton, " 3d " 4 00
No. 280. A. B. Patch, Ray, bull calf, (committee recommend for premium,) 2 00

J. D. YERKES,
D. THOMSON,
HORACE BRADLEY,
Committee.

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CLASS VIII. & IV.—WORKING OXEN—STEERS.

No. 80. J. S. Tibbitts, Plymouth, 1 pair working oxen, 4 years old, 1st prem., ... Silver Medal and $10 00

No. 252. C. A. Green, Troy, 1 pair working oxen, 4 years old, 2d prem., ... 10 00

No. 37. Allen Tireman, Greenfield, 1 pair working oxen, 5 years old, 3d prem., ... 8 00

No. 100. Joslyn & Norris, Ypsilanti, 1 pair working oxen, 6 years old, prem., reccommended, ... 6 00

No. 39. Heman Castle, Detroit, 1 pair steers, 4 years old, 1st prem., ... Bronze Medal and 10 00

No. 93. J. D. McMasters, Ann Arbor, 1 pair steers, 4 years old, 3d prem., ... Transactions and 5 00

No. 319. S. A. Randall, Brooklyn, 1 pair steers, 3 years old, 2d prem., ... Buel's Farmer's Companion and 5 00

No. 345. D. M. Uhl, Ypsilanti, 1 pair steers, 2 years old, 1st prem., ... 6 00

No. 97. A. L. Gilbert, Corunna, 1 pair steers, 2 years old, 2d prem., ... 4 00

No. 73. Jno. Starkweather, Ypsilanti, 1 pair steers, 2 years old, 3d prem., ... Transactions and 2 00

No. 80. J. S. Tibbitts, Plymouth, 1 pair best trained oxen, 1st prem., ... 10 00

No. 97. A. L. Gilbert, Corunna, 1 pair trained oxen, 2d premium, ... 7 00

No. 319. S. A. Randall, Booklyn, 1 pair trained oxen, 3d premium, ... 5 00

No. 272. Wm. H. Lester, Utica, 1 pair steers, 1 year old, 1st prem., ... 5 00

Having met, and carefully examined the foregoing list of cattle and steers, we have awarded the above premiums.

PETER FERGUSON,
BENJ. FOWLE,
Committee.

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CLASS X., XI., XII.—FAT CATTLE—FED ON HAY AND GRASS ALONE, AFTER ONE YEAR OLD.—MILCH COWS.

No. 77. Munson Hurd, Monroe, pair fat oxen, grass fed, 1st premium,.....Transactions and $10 00

No. 99. Joslyn & Norris, Ypsilanti, pair fat oxen, grass fed, 2d premium,..... 8 00

No. 167. H. Arnold, Kalamazoo, fat ox, grass fed, 1st pre'm. 5 00

No. 125. Richard Lewis, Kalamazoo, fat ox, grass fed, 2d premium,..... 4 00

No. 19. S. W. Bowers, Borodino, fat ox, grass fed, 3d premium, 3 00

No. 176. Silas Sly, Plymouth, fat steer, 3 years old, 1st pr'm. 5 00

No. 228. Amos Mead, Mead's Mill, fat cow, 1st premium,..... 5 00

No. 15. F. S. Finley, Ann Arbor, milch cow, 1st. premium, Silver Medal, and..... 10 00

No. 47. Jos. Smith, Greenfield, milch cow, Allen on Domestic Animals and..... 8 00

No. 48. Jos. Smith, Greenfield, milch cow,..... 6 00

Your committee would observe, that there has been but a very partial compliance with the rules of the society, observed by exhibitors, in making reports in regard to the manner of feeding, and the amount of milk and butter made; but so far as they have been made to the committee, they are hereunto attached.

J. TURRILL,
MARK FLANNIGAN,
Committee.

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CLASS XIII.—FOREIGN CATTLE.

No. 28. S. A. Bushnell, Hartford, Ohio, Short Horn bull 3 years old,.....Diploma and $10 00

No. 186. Ethan Allen, Twinsburgh, Ohio, Short Horn bull, 2 years old,..... 5 00

No. 29. S. A. Bushnell, Hartford, Ohio, Short Horn bull calf,.. 5 00

No. 170. Silas Sly, Plymouth, Mich., Short Horn cow, 6 years old,.....Diploma and 10 00

No. 293. E. M. Crippen, Coldwater, Devon bull, 2 years old,. 5 00

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No. 203. E. M. Crippen, Coldwater Devon bull calf,..... $5 00
No. 294. E. M. Crippen, Coldwater, Devon cow, 6 years old,
Diploma and..... 10 00
No. 308. E. M. Crippen, Coldwater, Devon heifer calf,..... 5 00

Many animals were entered to compete with foreign stock, which are owned in this State, that had no competition from out the State, and therefore no premium could be awarded, however worthy the animal might be. We have awarded premiums in all cases where there was competition from out the State.

F. V. SMITH,
Ch'n. of Committee.

DIVISION A.—HORSES.

CLASS XIV.—HORSES FOR ALL WORK.

Executive Committee, Michigan State Agricultural Society.

GENTLEMEN: Your committee upon horses for all work, would respectfully report, that the display of stallions 4 years old and over, was unusually fine, and your committee found much difficulty in determining among so many really fine horses, to whom should be awarded the first premiums. Governed by a desire to encourage the introduction into this State of the best known and tried stock of horses for all work, we decide to award the first premium to the horse,

No. 52. Eldred & Backus, Detroit, "Jackson," stallion for all work, 14 years old, 1st premium,.....Silver Medal and $15 00

Of the "Andrew Jackson" stock, satisfactory evidence having been laid before us, that this horse was got by the celebrated horse "Andrew Jackson," who was also the sire of the horses "Kemble Jackson" and "Henry Clay," who was the sire of the horse "Cassius M. Clay," who took the first premium at the Springfield National horse exhibition, in 1853. This stock of horses have been tested in Kentucky, on Long Island, and in Western New York, and have proved themselves worthy of being classed among the best blood for all work, producing horses of fine size, action, and great powers of endurance.

Testimony has also been laid before us, furnished by well known

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breeders of horses upon Long Island, in regard to the colts got by Jackson, while owned there, which satisfy us, that he as a stock horse, has and will sustain the reputation of his illustrious sires.

The second premium we awarded to the horse,

No. 148. S. D. Blood, Kalamazoo, 1 stallion, 7 years old, "Black Hawk," 2nd premium,..... Transactions and $12 00

Satisfactory testimony has been furnished us, that he was sired by the original "Black Hawk," so called, owned by D. & D. E. Hill, of Vermont, which horse was sired by the Sherman Morgan horse. It is unnecesssary for your committee to express an opinion in regard to this stock of horses, as their reputation as roadsters is world wide and fully established. This horse, "Sherman Black Hawk," in the opinion of your committee, in symmetry, action, and style, is a worthy representative of a noble race.

The third premium we award to:

No. 284. J. B. Arms, Dexter, 1 stallion for all work, 5 years old, "Brag Trotter," 3d premium,..... $10 00

This horse has the fine points and size of his sire, "Old Brag Trotter," who took the first premium in this class at your fair for the year 1850.

A chesnut horse, said to be a Morgan horse, was shown to your committee, said to be owned by Mr. Fisk, of Coldwater. He was shown as a stallion 4 years old and over, numbered 313. We find that we have no such number in our catalogue of horses for all work, and therefore did not feel authorized to act in regard to him. We beg leave to say, however, that this horse should not be allowed to pass unnoticed; he is such a horse as horsemen love to look upon, and we cordially recommend him for a discretionary premium.

The show of young horses and mares in this class, proves the influence that your Society has had, in encouraging the improvement in the breed of horses in this State. It surpassed in number, blood and beauty, that of any previous fair your committee have attended, and will compare favorably with the eastern State Fairs. We award:

No. 267. B. J. Bidwell, Tecumseh, stallion 3 years old, 1st premium,..... Bronze Medal and $10 00

No. 255. Thos. Riley, Macomb county, stallion 3 years old, 2d premium,..... 10 00

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No. 269. A. Braidwood, Almont, stallion 3 years old, 3d prem., $8 00
No. 243. A. Knapp, Northville, " 2 " 1st " 10 00
No. 272. R. C. Cone, Troy, " 2 " 2d " 8 00
No. 118. D. McComber, Baltimore, " 2 " 3d " 6 00
No. 202. Geo. Clark, Lapeer, " 1 " 1st " 8 00
No. 251. Jared Davidson, Detroit, " 1 " 2d " 6 00
No. 250. " " sucking horse colt, 1st " 5 00
No. 200. Geo. Clark, Lapeer, brood mare 11 years old, 1st premium, ... Silver Medal and 12 00
No. 103. D. M. Uhl, Ypsilanti, brood mare 6 years old, 2d premium, ... 12 00
No. 250. Jared Davidson, Detroit, brood mare 6 years old, 3d premium, ... 10 00
No. 233. Geo. A. Dennison, Troy, brood mare 3 years old, 1st premium, ... 10 00
No. 199. George Morse, Troy, brood mare 3 years old, 2d prem., 8 00
No. 59. Andrew Wilkie, Detroit, mare 3 years old, 3d prem., .. 6 00
No. 105. D. M. Uhl, Ypsilanti, " 2 " " 1st prem... 8 00
No. 201. Geo. Clark, Lapeer, " 2 years old, 2d prem., 6 00
No. 196. Wells Burt, Mt. Vernon, mare, 2 years old, 3d prem., 4 00
No. 104. D. M. Uhl, Ypsilanti, mare, 1 year old, 1st premium, 6 00
No. 197. Wells Burt, Mt. Vernon, mare 1 year old, 2d prem., 5 00
No. 189. John Martin, Detroit, sucking mare colt, 1st prem., 5 00
No. 247. C. Reeve, Detroit, sucking mare colt, 2d premium, 4 00
No. 119. Peter Russel, Greenfield, sucking mare colt, 3d prem., 3 00

We would also reccommend a discretionary premium upon:
No. 106. D. M. Uhl, Ypsilanti, 1 gelding, 2 years old, and
No. 101. J. R. Tibbitts, Southfield, 1 gelding 2 years old,

Which class of colts although regularly entered in our catalogue, seem to have been omitted upon your printed premium list.

Your committee would take this opportunity to urge upon the Farmers of this State, the importance to themselves in keeping up the interest at present manifested in improving the breed of that noble animal, the HORSE. This animal, next to man in intelligence, without whose assistance we could not transact the ordinary business of life, much less develop the treasures of the earth, buried beneath our own Free Soil, which can only be fully developed by the intelligent and

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economical application of scientific principles, both to that soil, and to every animal, seed, or implement necessary to its proper cultivation; this animal who, from the earliest ages of the world, has been not only the faithful servant, but the companion of man, identified with him in every conquest, whether of nations "amid wars and rumors of wars," or of the earth in the peaceful pursuits of Agriculture.

G. D. HILL,
D. A. KELLY,
WM. JOHNSON,
J. H. FARNSWORTH,
Committee.

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CLASS XV.—BLOOD HORSES.

The Committee on Blood horses respectfully report that they have discharged the duty of examining such as were presented, and beg leave to submit some remarks as part of their report for the purpose, if possible, of preventing misapprehension hereafter, on the part of those competing for premiums.

The instructions to the committe very properly as they think, exclude all horses for whom evidence could not be furnished sufficient to satisfy the committee that such horse was thoroughbred. It is only by adhering strictly to such regulations that purity of blood can be secured in the State, or justice done among competitors for premiums. Purity of blood in a few superior horses will prove of a decided advantage to traders. Not because a thoroughbred horse is as valuable for all work as mixed blood, for such, your committee think, is not the fact, but because, without some pure blood, a decidedly superior animal is rarely, if ever obtained. With a view therefore of inducing the introduction into the State, and the raising of pure blood horses, as well as for the purpose of doing justice to several very fine horses, your committee recommend to the executive committee, that a premium of seven dollars each, be awarded to the owners of those stallions, which were numbered:

No. 63. Samuel Rappleyee, Ridgeway, Blood stallion, 5 years old,.....discretionary prem., $7 00

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No. 161. B. J. Bidwell, Tecumseh, Blood stallion, 3 years old, discretionary prem., ... $7 00

No. 266. B. Dewey, Troy, Blood stallion, 10 years old, discretionary prem., ... 10 00

Superior animals, and richly merit, as they doubtless receive, the patronage of judicious breeders who reside within their reach.

The Chesnut horse, numbered 266, shows in his appearance and action, the general characteristics of the thoroughbred horse, and your committee think it more than probable, that with more opportunity, a full and pure pedigree might be furnished for him. It not having been done at this time, your committee could not under their instructions award him a premium, but hope the executive committee will do him the justice recommended.

The four years old stallion entered by the number 207, was furnished by his owner with a pedigree which satisfied the committee that he is a thorough bred horse, and your committee therefore award to him the first premium.

No. 207. H. R. Andrews, Detroit, blood stallion 4 years old, 1st premium, ... Silver Medal and $15 00

There were three entries of mares under numbers 193 and 256, the third one by the same owner as 256, being a bay mare three years old. Your committee were not fully satisfied with the pedigree furnished for either one of these mares, but regarding them as fine animals of high blood, they recommend to the Executive Committee to award to each one of them a premium of five dollars.

No. 193. F. W. Backus, Detroit, blood mare 4 years old, premium recommended, ... $5 00

No. 256. T. F. Gerls, Troy, blood mare 9 years old, premium recommended, ... 5 00

No. 258. T. F. Gerls, Troy, blood mare 3 years old, premium recommended, ... 5 00

Your committee cannot close their report without again expressing their approval of the instructions furnished them, and the hope that the Society will adhere to them in the future, so that no horse shall receive a premium hereafter as a pure blood horse, unless conclusive proof shall be furnished to the viewing committee that he is such.

And your committee would, with great respect, suggest the propriety

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of publishing at large such regulations as will secure this object, so that no competitor can in future be misled in his entry. Your committee regretted to find at their examination that several gentlemen had misapprehended the instructions, and necessarily, therefore, felt in some degree aggrieved by the decision which excluded them. Too much cannot be done to prevent a recurrence of this misapprehension, because the Society cannot too much encourage the productions of the best specimens of the horse.

This noble animal justly ranks all others, and is properly denominated the noblest of the brute species. Hence it is found that man, both in his savage and civilized conditions, attaches to this animal a high appreciation, and in many instances bestows upon him great affection.

CHAS. E. STUART,
HORACE WELCH,
W. GRAVES,
Committee.

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CLASS XVI. & XVIII.—DRAUGHT HORSES—JACKS AND MULES.

No. 215. A. H. Otis, Greenfield, stallion, 4 years old, 1st premium, ... Silver Medal and $10 00
No. 322. J. Frier, Canton, stallion, 4 years old, 2d premium, Transactions and 10 00
No. 185. A. Laplant, Detroit, stallion 4 years old, 3d premium, Youatt on Horse and 8 00
No. 113. J. W. Dickinson, Hillsdale, stallion, 3 years old, 1st prem., ... 10 00
No. 348. A. H. Otis, Greenfield, stallion, 1 year old, 1st prem., 7 00
No. 219. A. H. Otis, Greenfield, stallion, 1 year old, 2d prem., 5 00
No. 221. A. H. Otis, Greenfield, stallion, 4½ months old, 2d prem., ... 4 00
No. 216. A. H. Otis, Greenfield, Brood mare, 4 years old, 1st prem., ... Silver Medal and 8 00
No. 114. J. W. Dickinson, Hillsdale, Brood mare, 4 years old, 2d prem., ... Transactions and 8 00

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No. 115. J. W. Dickinson, Hillsdale, Brood mare, 4 years old, (having no colt, no premium awarded.)

No. 115. J. W. Dickinson, Hillsdale, mare colt, 2 years old, 1st prem., ... $7 00

No. 218. A. H. Otis, Greenfield, mare colt, 2 years old, 2d premium, ... 5 00

No. 220. A. H. Otis, Greenfield, mare colt 2 years old, 2d premium, (no competition,) 4 00

No. 222. A. H. Otis, mare colt, 4½ months old, 2d prem., (no competition,) 3 00

No. 203. Geo. Clark, Lapeer, gelding, 2 years old, discretionary premium recommended.

This class of horses presented, was not large, but the most of them were very fine for draught horses.

E. J. WHITE,
ALONZO KIES,
Committee.

CLASS XVII.—MATCHED AND SINGLE HORSES.

The committee on matched and single horses would respectfully report:

That the number of matched pairs of horses four years old and upwards, entered and exhibited on the ground, was thirty-one; also, two pair of matched three year old. There were also exhibited thirty single horses four years old and upwards, and one three years old.

The show of horses in this class, numbering nearly one hundred, was large and fine, and the committee have had an extremely delicate task in selecting such as were thought particularly worthy of the premiums offered. Many that were offered would not bear the scrutiny of a close examination for fancy matched horses, although each showed separately many superior points in breeding and fitting. After much care and deliberation, the committee have decided to award the premiums as follows:

No. 187. H. H. Brown, Detroit, pair matched horses 4 years old, 1st premium, ... Silver Medal and $15 00

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No. 195. Henry Randolph, Adrian, pair matched horses, 4 years old, 2d premium,.....Bronze Medal and $10 00

No. 64. Sam'l Rappleyee, Ridgeway, pair matched horses 4 years old, 3d premium,.....Transactions and 10 00

No. 60. J. W. Tillman, Detroit, pair matched horses 4 years old, 4th premium,..... 8 00

On matched three years old the committee would report that only two pairs were offered for competition, and have awarded the premiums as follows:

No. 147. D. Watson, Albion, pair matched horses 3 years old, 1st premium,.....$10 00

No. 270. J. M. Norton, Troy, pair matched horses, 2 years old, 2nd premium,..... 8 00

The show of single horses was beautiful in the extreme, and the committee regret that they could not award premiums to many necessarily cut off. After reducing the number to as few as possible, the committee decide to award as follows:

No. 344. S. P. Brady, Detroit, single horse 4 years old, 1st premium,.....Silver Medal and $5 00

No. 198. G. L. Bidwell, Adrian, single horse 4 years old, 2d premium,.....Youatt on the Horse and 5 00

No. 210. Byron Green, Detroit, single horse 4 years old, 3d pre., 5 00

No. 67. Jno. Starkweather, Ypsilanti, " 4 " 4th " 3 00

Only one single horse three years old was exhibited for competition, and the committee have decided to award it the first premium.

No. 258. T. F. Gerls, Troy, single horse 3 years old, 1st prem., $5 00

J. WILSON DICKINSON,
GEO. P. NEWBERRY,
J. L. MANSFIELD,
Committee.

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CLASS XIX.—FOREIGN HORSES.

J. C. HOLMES, *Sec'y. &c.*,

DEAR SIR—The only difficulty encountered by the committee to whom has been assigned the duty of reporting on "foreign horses," has

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been in determining between the merits of Nos. 313 and 52, stallions owned within our State, and presented for competition with those from abroad. To No. 313 the committee, after much deliberation, awarded the premium as the "best stallion for all work."

No. 313. A. C. Fisk, Coldwater, 1 horse 4 years old, for all work, 1st prem., ... Diploma and $10 00

being a 4 year old Black Hawk, of large size, of strong, compact form, combining fine action, style, speed, and powers of endurance. Had the committee been governed entirely by the certificates of the pedigree of the progeny of the horses, they would have given the award to "Jackson," and it was questionable with us whether the reputation of a horse as the sire of fast roadsters, however good it might be, (and none can be better than that of Jackson,) should operate to the detriment of one combining the above qualifications which are deemed by a majority of the committee as essential to a horse for all work.

To No. 113, the committee have awarded the premium as the best draught horse.

No. 113. J. W. Dickinson, Hillsdale, 1 stallion, 4 years old, for draught, ... $10 00

With these two recommendations we close our report, there being in our opinion, no Blood horses, or working mares, presented worthy of consideration.

Respectfully,

S. P. BRADY,
ANDREW L. HAYS,
J. D. FRANKLIN,
Committee.

DIVISION B.—SHEEP.

CLASS I.—SPANISH MERINOS.

No. 77. Jno. Starkweather, Ypsilanti, 1 buck, Spanish Merino, 3 years old, 1st premium, ... Silver Medal and $6 00

No. 247. B. Peckham, Albion, 1 buck, Spanish Merino, 3 years old, 2d premium, ... 6 00

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No. 249. B. Peckham, Albion, 1 buck, Spanish Merino, 3 years old, 3d premium, ... $4 00

No. 83. J. W. Dickinson, Hillsdale, 1 buck, Spanish Merino, 2 years old, 1st premium, ... Silver Medal and 6 00

No. 251. B. Peckham, Albion, 1 buck, Spanish Merino, 2 years old, 2d premium, ... 6 00

No. 258. B. Peckham, Albion, 1 buck, Spanish Merino, 2 years old, 3d premium, ... 4 00

No. 84. J. W. Dickinson, Hillsdale, 1 buck, Spanish Merino, 1 year old, 1st premium, ... 6 00

No. 259. B. Peckham, Albion, 1 buck, Spanish Merino, 1 year old, 2d premium, ... 5 00

No. 265. B. Peckham, Albion, 1 buck, Spanish Merino, 1 year old, 3d premium, ... 4 00

No. 260. B. Peckham, Albion, 5 buck lambs, Spanish Merino, 1st premium, ... 6 00

No. 79. Jno. Starkweather, Ypsilanti, 5 buck lambs, Spanish Merino, 2d premium, ... 5 00

No. 263. B. Peckham, Albion, 5 buck lambs, Spanish Merino, 3d premium, ... 4 00

No. 161. W. C. Fonda, Battle Creek, 5 ewes, Spanish Merino, 3 years old, 1st premium, ... Silver Medal and 6 00

No. 68. J. H. Butterfield, Utica, 5 ewes, Spanish Merino, 3 years old, 2d premium, ... 6 00

No. 248. B. Peckham, Albion, 5 ewes, Spanish Merino, 3 years old, 3d premium, ... 5 00

No. 254. B. Peckham, Albion, 5 ewes, Spanish Merino, 2 years old, 1st premium, ... 6 00

No. 250. B. Peckham, Albion, 5 ewes, Spanish Merino, 2 years old, 2d premium, ... 5 00

No. 82. J. W. Dickinson, Hillsdale, 5 ewes, Spanish Merino, 2 years old, 3d premium, ... 4 00

No. 69. J. H. Butterfield, Utica, 5 ewes, Spanish Merinos, 1 year old, 1st premium, ... 6 00

No. 255. B. Peckham, Albion, 5 ewes, Spanish Merino, 1 year old, 2d premium, ... 5 00

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No. 78. Jno. Starkweather, Ypsilanti, 5 ewes, Spanish Merino, 1 year old, 3d premium, ... $4 00

No. 264. B. Peckham, Albion, 5 ewe lambs, Spanish Merino, 1st premium, ... 6 00

No. 80. John Starkweather, Ypsilanti, 5 ewe lambs, Spanish Merino, 2d premium, ... 5 00

No. 267. B. Peckham, Albion, 5 ewe lambs, Spanish Merino, 3d premium, ... 4 00

JOHN BREWER,
SIMSON BROOKS,
GEO. W. GALE,
Committee.

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CLASS II.—FRENCH MERINO SHEEP.

No. 1. Jno. Brewer, Superior, French Merino buck, 3 years old, 1st premium, ... Silver Medal and $6 00

It is the opinion of your committee that this sheep combines many good qualities. He is of good size, his form symmetrical, denoting good constitution, and his fleece compact, and of fair medium quality.

No. 8. Jno. Brewer, Superior, 5 French Merino ewes, 1 year old, 2d premium, ... $5 00

There were no other sheep entered in competition with these ewes, but in the opinion of your committee they do not come up to the standard of first class French sheep, therefore we award them the second premium of five dollars.

No. 61. W. L. Shutts, Plymouth, 5 French Merino buck lambs, 2d premium, (no competition,) $5 00

No. 60. W. L. Shutts, Plymouth, 1 French Merino buck, 1 year old, 1st premium, ... 6 00

No. 160. W. C. Fonda, Battle Creek, 1 French Merino buck, having taken 1st premium last year, recommended ..... Diploma.

This sheep deservedly sustains his former high reputation. His wool is a most beautiful staple, and he possesses many other desirable qualities.

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No. 187. N. H. Schuyler, Birmingham, French Merino buck, 2 years old, 1st premium,.....Silver Medal and $6 00

It is the opinion of your committee that this sheep combines more good qualities than are usually found in a sheep of this class. He is of a large size, possessing a beautiful symmetry of form, a fine staple of wool, and he is evidently a heavy fleeced sheep.

As wool-growing is now one of the most important interests of Michigan, and as your committee are of the opinion that the French Merino are very far superior to all other breeds for wool-growing purposes, they cannot suppress their feelings of regret at the exceeding meager exhibition of this class of stock, and they hope to see at the future exhibitions of this society, a more spirited competition, among the breeders of French Merino sheep.

FRANKLIN BROWNELL,
LEANDER SMITH,
HARVEY EGGLESTON,
Committee.

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CLASS III.—SAXON AND SILICIAN.

No. 188. N. S. Schuyler, Birmingham, 1 Silician buck, 1 year old, 1st prem.,..... $6 00

No. 266. B. Peckham, Albion, 1 Saxon buck, 2 years old, 2d premium,..... 6 00

J. G. BLACKMAR,
Ch'n. of Committee.

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CLASS IV.—CROSS OF FULL BLOOD SHEEP.

No. 267. Walter Wright, Adrian, 1 Spanish and French Merino buck, 3 years old, 1st prem.,.....Silver Medal and $6 00

No. 2. Jno. Brewer, Ypsilanti, 1 cross Spanish and French Merino buck, 3 years old, 2d prem.,..... 6 00

No. 3. Jno. Brewer, Ypsilanti, 1 cross Spanish and French Merino buck, 2 years old, 1st prem.,.....Silver Medal and 6 00

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No. 4. Jno. Brewer, Ypsilanti, 1 cross Spanish and French Merino buck, 1 year old, 1st prem., ... $6 00

No. 9. Jno. Brewer, Ypsilanti, 1 cross Spanish and French Merino buck, 1 year old, 2d prem., ... 5 00

No. 5. Jno. Brewer, Ypsilanti, 5 Spanish and French Merino ewes, 3 years old, 1st prem., ... Silver Medal and 6 00

No. 71. J. H. Butterfield, Utica, 5 Spanish and French Merino ewes, 2 years old, 1st prem., ... 6 00

No. 6. Jno. Brewer, Ypsilanti, 5 Spanish and French Merino ewes, 2 years old, 2d prem., ... 5 00

No. 72. J. H. Butterfield, Utica, 5 Spanish and French Merino ewes, 1 year old, 1st prem., ... 6 00

No. 76. P. K. Leach, Utica, 5 Spanish and French Merino ewes, 1 year old, 2d prem., ... 5 00

No. 7. Jno. Brewer, Ypsilanti, 5 Spanish and French Merino ewes, 1 year old, 3d prem., ... 4 00

BENJAMIN PIERSON,
Ch'n. of Committee.

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CLASS V.—GRADE SHEEP.

No. 234. J. K. Godfrey, Gidley's Station, 1 Grade buck, 2 years old, 1st prem., ... Silver Medal and $5 00

No. 236. J. K. Godfrey, Gidley's Station, 1 Grade buck, 2 y'rs old, 2d prem., ... Transactions and 5 00

No. 235. J. K. Godfrey, Gidley's Station, 1 Grade buck, 2 y'rs old, 3d prem., ... 3 00

No. 190. N. S. Schuyler, Birmingham, 1 Grade buck, 1 year old, 1st prem., ... 5 00

No. 233. J. K. Godfrey, Gidley's Station, 1 Grade buck, 1 year old, 2d prem., ... 3 00

No. 25. Joseph Tireman, Greenfield, 1 Grade buck, 1 year old, 3d prem., ... 2 00

No. 206. A. H. Otis, Greenfield, 5 Grade ewe lambs, 1st premium, ... 5 00

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No. 241. J. K. Godfrey, Gidley's Station, 5 Grade ewe lambs, 2d premium, ... $4 00

No. 27. Joseph Tireman, Greenfield, 5 Grade ewe lambs, 3d prem., ... 3 00

No. 238. Jno. K. Godfrey, Gidley's Station, 5 Grade ewes, 1 year old, 1st prem., ... Silver Medal and 5 00

No. 237. Jno. K. Godfrey, Gidley's Station, 5 Grade ewes, 1 year old, 2d prem., ... 5 00

No. 29. Allen Tireman, Greenfield, 5 Grade ewes, 1 year old, 3d prem., ... American Shepherd and 3 00

No. 240. Jno. K. Godfrey, Gidley's Station, 5 Grade ewes, 2 years old, 1st prem., ... Silver Medal and 5 00

No. 239. Jno. K. Godfrey, Gidley's Station, 5 Grade ewes, 2 years old, 2d prem., ... 5 00

No. 26. Joseph Tireman, Greenfield, 5 buck lambs, 1st premium, ... 5 00

No. 242. Jno. K. Godfrey, Gidley's Station, 5 buck lambs, 2d prem., ... 4 00

BENJAMIN STEVENS,
Ch'n. of Committee.

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CLASS VI.—LONG WOOLED SHEEP.

No. 133. Jno. L. Howe, Utica, 1 long wooled buck, 2 years old, 1st premium, ... Silver Medal and $5 00

No. 269. O. W. & G. P. Bennett, Jackson, 1 long wooled buck, 3 years old, 2d premium, ... Transactions and 5 00

No. 23. Joseph Tireman, Greenfield, 1 long wooled buck, 1 year old, 1st premium, ... 5 00

No. 134. Jno. L. Howe, Utica, 1 long wooled buck, 1 year old, 2d premium, ... 3 00

No. 131. Jno L. Howe, Utica, 5 long wooled buck lambs, 1st premium, ... 5 00

No. 270. O. W. & G. P. Bennett, Jackson, 5 long wooled buck lambs, 2d premium, ... 4 00

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No. 130. Jno. L. Howe, Utica, 5 long wooled ewes, 1st premium,.....Silver Medal and $5 00
No. 31. Allen Tireman, Greenfield, 5 long wooled ewes, 2d premium,..... 5 00
No. 132. Jno. L. Howe, Utica, 5 long wooled ewe lambs, 1st premium,..... 5 00
No. 28. Joseph Tireman, Greenfield, 5 long wooled ewe lambs, 2d premium,..... 4 00
No. 208. Elias Stone, Roseville, 1 long wooled buck, 3 years old, 3d premium,..... 3 00

THOS. EDWARDS,
M. L. SHUTTS,
OLIVER HAMPTON,
Committe.

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CLASS VII. & VIII.—MIDDLE WOOLED SHEEP—FAT SHEEP.

The undersigned, a committee on Middle Wooled Sheep, would respectfully report that they have discharged the duties incumbent upon them, and have given the stock submitted for their inspection as thorough an examination as circumstances would permit, and as a result of their labors would submit the following as the various awards:.

No. 214. Daniel Whitfield, Pontiac, buck 3 years old, 1st premium,.....Silver Medal and $5 00
No. 210. Wm. Whitfield, Waterford, buck 3 years old, 2d premium,.....Transactions and 5 00
No. 128. Wm. H. Lester, Utica, buck 2 years old, 3d prem.,.... 3 00
No. 129. " " buck 1 " 1st " ... 5 00
No. 21. Wm. Maiden, Plank Road, buck 1 " 2d " ... 3 00
No. 127. Wm. H. Lester, Utica, 5 buck lambs, 1st prem.,.... 5 00
No. 212. Daniel Whitfield, Pontiac, 5 ewes 2 years old, 1st premium,.....Silver Medal and 5 00
No. 211. Daniel Whitfield, Pontiac, 5 ewes 2 years old, 2d premium,..... 5 00
No. 193. Joseph Tireman, Greenfield, 5 ewes 2 years old, 3d premium,.....American Shepherd and 3 00

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No. 125. Wm. H. Lester, Utica, 5 ewes 1 year old, 1st premium, ... Silver Medal and $5 00

No. 213. Daniel Whitfield, Pontiac, 5 ewe lambs, 1st premium, 5 00

No. 126. Wm. H. Lester, Utica, 5 " 2d " 4 00

No. 20. Wm. Maiden, Plank Road, 5 " 3d " 3 00

The committee would state that so far as Fat Sheep are concerned, coming under Class 8, none, in their judgment, were on the ground entitled to a premium.

All of which is respectfully submitted.

D. B. WEBSTER,
Chairman of Committee.

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CLASS IX.—FOREIGN SHEEP.

No. 15. Daniel Kimball, Rutland, Vt., 1 Spanish Merino buck, 3 years old, 1st prem., ... $5 00

No. 41. John Johnston, Williston, Vt., 1 Spanish Merino buck, 2 years old, 1st prem., ... 5 00

No. 163. Spencer Peel, Amherstburgh, C. W., 4 long wooled buck lambs, 1st prem., ... 5 00

No. 187. N. S. Schuyler, Birmingham, 1 French buck, 2 years old, 1st prem., ... 5 00

No. 44. J. D. Patterson, Westfield, N. Y., 2 French Merino bucks, imported, 2 years old, 1st prem., ... 5 00

No. 45. J. D. Patterson, Westfield, N. Y., 1 French Merino buck, imported, 3 years old, 1st prem., ... 5 00

No. 46. J. D. Patterson, Westfield, N. Y., 5 French Merino ewes, 3 years old, 1st prem., ... 5 00

No. 47. J. D. Patterson, Westfield, N. Y., 5 French Merino buck lambs, 1st prem., ... 5 00

No. 48. J. D. Patterson, Westfield, N. Y., 5 French Merino ewe lambs, 1st prem., ... 5 00

No. 278. John Patton, Amherstburgh, C. W., 1 long wooled Leicester buck, 1 year old, 1st prem., ... 5 00

No. 162. Spencer Peel, Amherstburgh, C. W., 5 long wooled Leicester ewes, 1 year old, 1st prem., ... 5 00

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No. 50. J. D. Patterson, Westfield, N. Y., 1 French and Spanish Merino Buck, 1 year old, 1st prem., ... $5 00

No. 41. John Johnston, Williston, Vt., 1 Silician buck, 2 years old, 1st prem., ... 5 00

P. HAYDEN,
ROBERT NESBITT,
L. ANDRUS,
LEMAN STRONG,
S. A. RANDALL,
Committee.

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DIVISION B.—SWINE.

CLASS X.

No. 62. J. S. Tibbitts, Plymouth, full blood Essex boar, 5 mos. old, 1st premium, ... Bronze Medal and $5 00

No. 63. J. S. Tibbitts, Plymouth, full blood Essex sow, 6 mos. old, 1st premium, ... Bronze Medal and 5 00

No. 64. J. S. Tibbitts, Plymouth, full blood Suffolk boar, 5 months old, 1st premium, ... Bronze Medal and 5 00

No. 65. J. S. Tibbitts, Plymouth, full blood Suffolk sow, 6 months old, 1st premium, ... Bronze Medal and 5 00

No. 66. J. S. Tibbitts, Plymouth, 1 pr. grade pigs, 7 months old, 1st premium, ... Bronze Medal and 3 00

No. 124. E. H. Cressey, Troy, 1 grade boar, 20 months old, 1st. premium, ... Bronze Medal and 5 00

No. 191. Joseph Meredith, Detroit, 1 grade sow, 2 years old, 1st premium, ... Bronze Medal and 5 00

No. 195. A. H. Otis, Greenfield, 1 grade boar, 2 years old, 1st premium, ... Bronze Medal and 5 00

No. 196. A. H. Otis, Greenfield, 1 grade sow, 1 year old, 1st premium, ... Bronze Medal and 5 00

No. 197. A. H. Otis, Greenfield, 1 grade sow, 1 year old, 2d premium, ... 3 00

No. 198. A. H. Otis, Greenfield, 1 lot of grade pigs, 3d premium, ... Transactions.

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No. 199. A. H. Otis, Greenfield, 1 lot grade pigs, 2d premium, $3 00
No. 200. " " 1 grade boar, 1 year old, 2d premium, 3 00
No. 201. A. H. Otis, Greenfield, 1 grass sow, 1 year old, 1st premium, Bronze Medal and 5 00
No. 203. A. H. Otis, Greenfield, 1 grade sow, 6½ months old, 1st premium, 3 00
No. 204. A. H. Otis, greenfield, 1 grade boar, 6½ months old, 1st premium, 3 00
No. 205. A. H. Otis, Greenfield, 1 fat hog, 15 months old, 1st premium, 5 00
No. 283. F. W. Backus, Detroit, 1 Berkshire boar, 2 years old, 1st premium, Bronze Medal and 5 00
No. 284. F. W. Backus, Detroit, 1 Berkshire sow, 3 years old, 1st premium, Bronze Medal and 5 00
No. 285. F. W. Backus, Detroit, 7 Berkshire pigs, 1st premium, 5 00
No. 277. W. S. Lunt, Findlay, O., 2 Essex pigs, 3 months old, premium recommended.
No. 67. Gurdin Perrin, Milan, O., 1 grade boar, 2 years old, premium recommended.
No. 207. J. P. Clark, Detroit, 1 large boar, 2 years old, premium recommended.

Respectfully submitted,

ASA H. OTIS,

Ch'n. of Committee.

DIVISION B.—POULTRY.

CLASS XI.

The Committee on best variety of Fowls submit the following: We are fully convinced, after long and careful examination of the subject, that the great variety of names applied to the large Asiatic fowls are descriptive of a breed that have a common origin, and that differ only in the markings of their plumage, and the manner of their being bred.

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In England they have no Shanghais, but every variety of the large China feathered leg fowl is known as the Cochin; yet many of the best importations of the Shanghais to the States are selections from the English Cochins.

We are of opinion that any one variety of the large Asiatics is much more profitable to the farmer and the public generally than the native breed or any other breed. They have greater size, are equally hardy, and much more prolific, while their quiet dispositions and small wings make their confinement easy.

As to which particular color is best, experience indicates that the darkest shades are hardiest. Those that have been purely bred from well proportioned, vigorous stock, are most desirable. We deem it but just to the public to correct the false impressions made by speculators concerning the colors of the variety called "Brahmas." The best specimens of pure bloods do not invariably breed with the pea-comb, the black penciling, or the white breast.

The black penciling is occasionally spread over the fowl, mingling with the white, giving them a greyish color, while others are beautifully mottled.

No. 69. M. Freeman, Schoolcraft, 1 coop Cochin Chinas, 1st premium, ... $4 00
No. 120. E. H. Cressey, Troy, 1 coop Cochin Chinas, 2d prem., 2 00
No. 91. M. Freeman, Schoolcraft, 1 coop Shanghais, 1st prem., 4 00
No. 256. B. Peckham, Gidley's Station, 1 coop Shanghais, 2d premium, ... 2 00
No. 167. A. F. Moon, Paw Paw, 1 coop Brahma Pootras, 1st premium, ... 4 00
No. 86. M. Freeman, Schoolcraft, 1 coop Brahma Pootras, 2d premium, ... 2 00
No. 169. A. F. Moon, Paw Paw, 1 coop Chittagongs, 1st prem., 4 00
No. 92. M. Freeman, Schoolcraft, 1 coop Chittagongs, 2d prem., 2 00
No. 102. Wm. Hudson, Detroit, 1 coop Bantams, 1st premium, 4 00
No. 95. M. Freeman, Schoolcraft, 1 coop Bantams, 2d " 2 00
No. 101. Wm. Hudson, Detroit, 1 coop Whites, 1st " 4 00
No. 246. G. W. Bothwell, Albion, 1 " 2d " 2 00
No. 97. M. Freeman, Schoolcraft, 1 coop Cross Breeds, 1st prem., 4 00
No. 172. Jno. Sherman, Paw Paw, 1 " " 2d " 2 00

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No. 289. M. Freeman, Schoolcraft, 1 coop best variety, 1st pre., $4 00
No. 288. " " 1 coop best and largest collection, 1st premium, 5 00
No. 22. Wm. Maiden, Plank Road, 1 coop, best lot of turkeys, black, 3 00
No. 166. L. L. Beaufait, Detroit, 1 coop, best lot of turkeys, white, 3 00
No. 109. Wm. Hudson, Detroit, 1 coop, best lot of ducks, large, 3 00
No. 108. " " " " " small, 3 00
No. 178. Francis Leslie, Dearborn, 1 coop Guinea fowls, 3 00
No. 176. " " " gray goose, 3 00
No. 112. Wm. Hudson, Detroit, 1 coop of pea fowls, 3 00
No. 223. " " " pigeons, 2 00
No. 291. M. Freeman, Schoolcraft, for greatest number and weight of eggs, obtained from a lot of hens, during the season, with statement of manner and cost of keeping, 5 00

W. S. LUNT,
G. W. FOX,
W. W. MURPHY,
J. W. CHILDS,
Committee.

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REPORT OF COMMITTEE ON FOREIGN POULTRY.

No. 271. G. W. Fox, Mansfield, Ohio, coop Cochin Chinas, 1st prem., $4 00
No. 274. W. S. Lunt, Findlay, Ohio, coop Cochin Chinas, 2d prem., 2 00
No. 273. O. J. Bissell, Mansfield, Ohio, coop Shanghais, 1st prem., 4 00
No. 280. O. J. Bissell, Mansfield, Ohio, coop Shanghais, 2d prem., 2 00
No. 136. W. W. Macomber, Barcelona, N. Y., coop Brahma Pootras, 1st prem., 4 00
No. 154. W. W. Macomber, Barcelona, N. Y., coop Cross Breeds, 4 00

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W. W. Macomber, Barcelona, N. Y., largest collection of fowls, 1st prem., ... $5 00

G. W. Fox, Mansfield, Ohio, largest collection of fowls, 2d premium., ... 3 00

CHAS. M. KEENAN,
D. CLARKSON,
PRINCE BENNETT,
Committee.

DIVISION C.—FARM IMPLEMENTS.

CLASS I.

No. 2. F. A. Flower, 1 corn cultivator, ... $2 00

No. 8. Bean & Wright, Hudson, 1 fanning mill, ... 2 00

No. 9. Prince Bennett, Ypsilanti, 1 Scotch harrow, ... 2 00

No. 12. J. S. Tibbitts, Plymouth, 1 ox yoke, ... 2 00

No. 14. Cha's Dickey, Marshall, 1 fanning mill, recommend discretionary premium,

No. 77. Davis, Austin & Co., Jackson, 4 farm wagons, Diploma and 8 00

No. 78. E. K. Smith, Homer, 2 hay, corn stalk, and straw-cutters, ... 3 00

No. 106. J. C. Rich, Penfield, N. Y., 2 straw and hay-cutters, 3 00

No. 106. J. C. Rich, Penfield, N. Y., 2 corn stalk cutters, ... 3 00

No. 108. L. B. Fisher, Coldwater, 1 corn planter, ... 2 00

No. 111. A. Arms, Kalamazoo, 1 wheat cultivator, ... 2 00

J. D. McMASTERS,
WILLIAM WILSON,
Committee.

CLASS II.

The committee on Division C., Class 2, beg leave to report that their list of articles exhibited for competition is quite limited, and that in but very few instances is there any competition.

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No. 15. Wm. Maiden, Plank Road, 1 hay rigging,..... $2 00

D. O. & W. S. Penfield, Detroit—No. 35, 1 bush hook; No. 36, 1 bush hook, with handle; No. 37, 4 flower hooks; No. 38, 1 sod knife; No. 39, 2 transplanting trowels, 2 sizes; No. 41, 12 manure forks; No. 68, 6 dozen straight forks; No. 69, 4 doz. straight forks; No. 70, 4 doz. Partridge's forks,.....Silver Medal.

No. 99. J. M. Waite, Clinton, 1 double revolving, reverse rotary, dash churn,.....Diploma.

DEXTER MUZZY,
Ch'n. of Committee.

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CLASS III.

The Committee on Division C., Class 3, Farm Implements, after careful examination and trial of the implements in foregoing schedule, submit the following report:

REAPERS.

There were three of these machines entered. The committee saw them in action on the Fair Grounds, but could have formed a better opinion of their merits could they have seen them in operation on the field. Under the circumstances, their decision is based upon the testimony elicited in former practical trials, the simplicity of construction, cheapness in price, and general adaptation to the wants of farmers.—We therefore award the premiums to

No. 10. J. H. Manny, Rockford, Ill., adjustable reaper and mower combined,.....Diploma and $10 00

No. 92. W. Fisher, Brockport, N. Y., adjustable reaper and mower combined,..... 5 00

MOWERS.

No. 93. Willard Fisher, Brockport, N. Y., Ketchum's mowing machine, 1st premium,.....Diploma and $10 00

No. 10. J. H. Manny, Rockford, Ill., adjustable reaper and mower, 2d premium,..... 5 00

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THRESHING MACHINES.

No. 79. R. T. Merrill, Battle Creek, 1 thresher and separator, 1st premium, ... Diploma and $10 00

No. 59. D. O. & W. S. Penfield, Detroit, 1 thresher and separator, 2d premium, ... 5 00

MISCELLANEOUS ARTICLES.

No. 91. James Andrews, Pontiac, 1 corn planter, Diploma and 5 00

No. 108. L. B. Fisher, Coldwater, 1 seed drill and cultivator combined, ... 5 00

No. 1. F. A. Flower, Pontiac, 1 wheat cultivator, Diploma and 5 00

No. 98. F. F. Parker & Bro., Detroit, 1 portable saw-mill, Diploma and 5 00

No. 40. D. O. & W. S. Penfield, Detroit, 2 corn shellers, Diploma and 5 00

No. 83. F. F. Parker & Bro., Detroit, vegetable cutter, ... Diploma.

No. 19. D. O. & W. S. Penfield, Detroit, portable cider-mill, Diploma and 5 00

D. O. & W. S. Penfield, Detroit, best and most numerous collection of agricultural implements, ... Diploma and $10 00

D. O. & W. S. Penfield, Detroit, best and most useful machinery for farmer, ... Medal and 10 00

No. 71. D. O. & W. S. Penfield, Detroit, 1 portable seed sower, ... recommend Diploma.

No. 18. J. S. Gage, Dowagiac, machine for gathering clover seed, ... recommend Medal.

No. 114. G. W. Bell, Ann Arbor, Solomon's improved grain and seed separator, ... recommend Diploma.

F. A. Haviland, Ann Arbor, Moore's wheat drill, .. recommend Medal.

J. L. BROWNELL,
J. A. PECK,
S. M. BARTLETT,
Committee.

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CLASS IV.—PLOWS AND PLOWING.

The committee on plows and plowing report that there were ten teams entered for plowing, and but seven of them came forward to plow—five single horse teams, and two ox teams. Your committee made a selection of the ground for plowing, on the Cass farm, north of and near the fair ground. It was oat stubble, fairly sodded over, and a clay loam.

The five horse teams were entered in one class and competed for the first, second, and third premiums, all of which did their work remarkably well, considering the unfitness of the ground on account of its being so wet. Each plowed their quarter of an acre within one hour. Thos. W. Whitfield used the "Runnell's self sharpening, steel point and shear plow," manufactured at Republic, Ohio, which is entered as a "sod plow for stiff soils." This plow was not well adapted to this kind of ground, but the skill of the plowman, and his gentleness in managing his team, entitle him to the first premium.

No. 102. Thos. W. Whitfield, Waterford, best plowing, 1st prem.,.....Bronze Medal and $10 00

No. 82. Thos. Smith, Troy, (Wattles' team,) Trojan plow No. 5, 2d best plowing, 2d prem.,.....Gardners Dict. and 8 00

This plow covered the vegetable matter the best of any used.

No. 7. Thos. Miller, Ypsilanti, (Starkweather's team,) Trojan plow No. 4, 3d prem.,.....$6 00

James Forsyth, (entry No. 63) did his plowing in a neat and farmer like manner and is *worthy of commendation.*

No. 112. C. Albions, Ypsilanti, ox team, Eagle plow No. 74, 1st prem.,.....$10 00

No. 81. A. Knapp, Northville, ox team, Starbuck plow No. 74, did not manifest sufficient skill in plowing to entitle him to any premium.

The plows were next examined, and their repective merits considered Your committee must here express their surprise, that not a plow manufactured in this State is found here to compete with those of foreign make, when it is well known that a large number of the plows used by our farmers are made within the State. Why should the plow makers fear to exhibit the products of their labor, and compare their mechanical skill with those in other States ?

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No. 102. J. Reynolds, Republic, Ohio, 1 sod plow for stiff soils, Diploma and $5 00

This plow was tried in a stiff clay sod, with a diameter or draft scale. It cut a furrow fifteen inches wide, and seven and a half inches deep, and the weight of draft was two hundred and seventy three pounds. This plow did its work in a commendable manner, and being steel point and shear, and so fastened to the plaid that they can be changed or turned over, so that they will wear sharp, makes it a valuable plow for the purposes recommended, and is awarded the first premium as a sod plow.

No. 105. R. A. Graham, New Paris, Ohio, 1 plow for general purposes, premium recommended. A left handed steel plow, entered for general purposes. It is a very ingeniously made plow, and can be fitted for any kind of plowing, and for two or three horses, and the width of furrow can be increased or lessened by means of a screw between the mould board and land side as circumstances may require, but its utility for general purposes was not fully tested, and your committee are not at present prepared to award it a premium, but they think it entitled to *high commendation.*

No. 104. J. Reynolds, Republic, Ohio, 1 sub-soil Plow, 1st premium, ... $5 00

A sub-soil plow, steel point and shear, which are fastened to the plow the same as on sod plow, No. 102, and makes it a very durable article, and of great ability. We therefore award it the first premium.

No. 107. Baker's gang plow and seeder, is a very ingenious farming implement. Its various merits are unknown to your committee, but they think it is worthy of *notice and commendation.*

No. 97. Five assorted plows, but they are not entered for any specific purpose. They are all of Ruggles, Nourse & Mason's make; their utility is well known, and their merits have been repeatedly tested. Your committee think they can add nothing to their already world wide reputation, but would recommend them for a discretionary premium.

Several other numbers were entered, but they were all of the Trojan, Starbuck and Eagle plows, which were not entered for any specific purpose. Your committee would have been glad to have had an opportunity to have tested their respective merits, but from their appearance

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and structure they most cordially recommend them to the people at large, as being among the best plows offered for sale.

All of which is respectfully submitted,

TITUS DORT,
THOS. MITCHELL,
WM. WHITFIELD,
AARON BROWN,
Committee.

DIVISION D.

BUTTER, CHEESE, HONEY, SUGAR.

No. 43. Mrs. Oliver Hampton, Hickory Grove, 18 lbs butter made in June, 1st premium,.....Silver Medal and $5 00

No. 25. Jas. Smith, Greenfield, crock butter made in June, 2d premium,.....Transactions and 3 00

No. 18. Mrs. G. W. Collins, Farmington, 15 lbs butter made in June, 3d premium,..... 2 00

No. 23. James Smith, Greenfield, 100 lbs butter made at any time, 1st premium,.....Silver Medal and 3 00

No. 13. Mrs. Geo. Tibbitts, Southfield, 15 lbs butter made at any time, 2d premium,.....Transactions and 3 00

No. 2. J. W. Pardee, Dearborn, 15 lbs butter made at any time, 3d premium,..... 2 00

No. 6. Jno. Gray, Dearborn, 15 lbs butter made at any time, 4th premium,..... 1 00

No. 24. Jas. Smith, Greenfield, 15 lbs butter, 2d premium,... 5 00

No. 4. Jas. Hutchinson, Ypsilanti, 15 lbs butter, 3d premium, Webster's Encyclopedia and..... 1 00

No. 10. J. S. Tibbitts, Plymouth, 1 old cheese, 1st premium, Silver Medal and..... 8 00

No. 30. Norton Lapham, Farmington, 2 old cheese, 2d premium,.....Webster's Encyclopedia and 3 00

No. 38. L. Lapham, Farmington, 1 old cheese, 3d premium,.. 3 00

No. 11. J. S. Tibbitts, Plymouth, 1 new cheese, 1st premium,.. 5 00

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No. 28. J. H. Murray, Farmington, 38 new cheese, 2d premium,.....Webster's Encyclopedia.
No. 33. J. W. Fairman, Canton, 12 new cheese, 3d premium,. $2 00
No. 34. " " 8 " premium recommended.
No. 40. L. Lapham, Farmington, 1 sage cheese, 1st premium, 5 00
No. 31. N. Lapham, " 2 " 2d premium, Webster's Encyclopedia.
No. 8. M. Hurd, Monroe, 1 sage cheese, 3d premium,..... 2 00
No. 17. A. L. Gilbert, Corunna, 10 lbs maple sugar, 1st prem., 5 00
No. 20. Mrs. G. W. Collins, Farmington, 10 lbs maple sugar, 2d premium,..... 3 00
No. 36. S. Bristol, Almont, 10 lbs maple sugar, 3d premium,. 2 00
No. 12. E. J. Bonine, Vandalia, 1 box honey, 1st premium,... 3 00
No. 15. E. B. Spencer, Redford, 1 " 2d " ... 2 00
No. 22. A. F. Moon, Paw Paw, 1 glass pyramid of honey, 3d premium,..... 1 00
No. 72. E. B. Spencer, Redford, 1 bee hive,..premium recommended.
No. 32. Mrs. Millis, Detroit, 1 jar hog's lard,.. "
No. 46. Jno. Patton, Amherstburg, C. W., cheese,.....Transactions.

Your committee regretted the absence of Mr. Daniel Kinney, Mr. Davidson, and Mr. Yerkes, but were enabled to substitute Mrs. Jno. Palmer, who very kindly consented to serve on the committee.

ORVILLE B. DIBBLE,
Chairman of Com.

DIVISION E.—DOMESTIC MANUFACTURES.

CLASS I.—HOME MADE.

No. 99. Mrs. Francis Leslie, Dearborn, pair woolen blankets, 1st premium,..... $5 00
No. 145. Mrs. A. Lapham, Farmington, pair woolen blankets, 2d premium,.....Transactions and 4 00
No. 74. Mrs. E. Kirk, Dearborn, pair woolen blankets, 3d premium, ... 2 00
No. 100. Mrs. F. Leslie, Dearborn, 10 yards of flannel, 1st premium, ... 5 00

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No. 120. Mrs. F. Gains, Dearborn, 10 yards of flannel, 2d premium, ... $4 00
No. 123. Lewis Emery, Hillsdale, 10 yards woolen cloth, 1st premium, ... 5 00
No. 127. Lewis Emery, Hillsdale, 10 yards of woolen cloth, 2d premium, ... Transactions and 4 00
No. 128. Lewis Emery, Hillsdale, 10 yards woolen cloth, 3d premium, ... 2 00
No. 158. E. W. Hersey, Oakland, 10 yards carpet, 1st premium, ... 5 00
No. 115. Mrs. W. S. Getchell, Detroit, 1 hearth rug, 1st prem. 3 00
No. 115½. " " 1 " 2d premium, ... Transactions and 1 00
No. 90. Jno. Sweet, Redford, 26 yards of rag carpet, 1st premium, ... 3 00
No. 152. Mrs. T. F. Gerls, Troy, 10 yards rag carpet, 2d premium, ... 2 00
No. 133. Mrs. J. Hendrickson, Detroit, 10 yards rag carpet, 3d premium, ... Transactions.
No. 166. Mrs. S. Cowen, Grand Blanc, 1 pair woolen stockings, 1st premium, ... Transactions and 2 00
No. 131. Mrs. W. A. Dennison, Troy, 1 pair woolen stockings, 2d premium, ... 1 00
No. 132. Mrs. W. A. Dennison, Troy, 1 pair socks, 1st prem. 2 00
No. 81. Mrs. J. L. Stout, Troy, 1 pair socks, 2d premium, ... 1 00
No. 90. Mrs. Lydia Sweet, Redford, 1 pair mittens, 1st prem. 1 00
No. 93. Mrs. A. Brink, Nankin, 1 woolen coverlet, 1st prem... 4 00
No. 144. Mrs. A. Lapham, Farmington, 1 woolen coverlet, 2d premium, ... Transactions and 2 00
No. 157. Mrs. E. W. Hersey, Oakland, 1 woolen coverlet, 3d premium, ... 1 00
No. 121. Mrs. F. Gaines, Dearborn, 1 piece satinett, 1st prem. 2 00
No. 126. Lewis Emery, Hillsdale, 1 woolen shawl, 1st premium, 5 00
No. 125. " " 1 " 2d premium, Transactions and 3 00
No. 124. Lewis Emery, Hillsdale, 1 woolen shawl, 3d prem. 3 00
No. 56. Mrs. Buddleston, Gibraltar, 1 white quilt, 1st premium, 5 00

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No. 73. Mrs. E. Kirk, Dearborn, 1 white quilt, 2d premium,.. $4 00
No. 150. Mrs. A. Whitehead, Pontiac, 1 white quilt, 3d prem. 3 00
No. 140. Mrs. L. Hollingworth, Moscow, 1 patch-work quilt, 1st premium,..... 5 00
No. 54. H. Welch, Ypsilanti, 1 patch-work quilt, 2d premium, 4 00
No. 170. Amos Hicks, Ann Arbor, 1 patch-work quilt, 3d premium,..... 3 00
No. 1. Mrs. F. S. Finley, Ann Arbor, patch work quilt, 4th premium, ... 2 00
No. 67. Mrs. Shipner, Detroit, patch work quilt, 5th prem.,... 1 00
No. 129. Mrs. W. A. Dennison, Troy, 1 lb. woolen yarn, 1st premium, ... 3 00
No. 61. J. Reynolds, Concord, 1 bed spread, deserves premium of 5 00
No. 52. Mrs. M. Aspinall, Detroit, bed spread, deserves pemium of..... 4 00
No. 43. Mrs. S. Weston, Detroit, bed spread, deserves premium of..... 3 00
No. 101. Mrs. F. Leslie, Dearborn, knit shirt, deserves premium of..... 2 00
No. 117. Beecher, Rice & Ketchum, Detroit, paper hangings, deserves premium.
No. 106. Wm. Reedmond, Detroit, pair woolen mittens, deserves premium.
No. 153. Holmes & Co., Detroit, pair worsted mittens, deserves premium.
No. 154. Holmes & Co., Detroit, Brussells lace square shawl, deserves premium.
No. 155. Holmes & Co., Detroit, Brussels lace scarf, deserves premium.
No. 159. Wall, Raymond & Co., Detroit, royal Medallion carpet, recommended discretionary premium.
No. 160. Wall, Raymond & Co., Detroit, Smith's tapestry Aubussion carpet, recommended discretionary prem.
No. 161. Wall, Raymond & Co., Detroit, Mosaic table cover, recommended discretionary premium.

L. EMERY,
Ch'n. of Committee.

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CLASS III.

The committee on Division E., Class 3, beg leave to report that we regret to say, although there are but few articles enumerated in this class, the representations are very meager, and we earnestly hope, at the Seventh Annual Fair of this Society, to see more competition in this very important class of domestic manufactures.

Besides the articles enumerated under this head in the Society's journal, we find also three gentlemen's linen shirts, and one knit cotton night cap, for which the committee have awarded the Society's Diploma.

No. 148. Mrs. Abram Lapham, Farmington, pair cotton stockings, 1st prem., ... $2 00

No. 104. Mrs. Francis Leslie, Dearborn, pair knit stockings, 2d prem., ... Diploma.

No. 98. Mrs. Esther Thomas, Detroit, 3 gentlemen's shirts, ... 3 00

Respectfully, &c.,

A. J. KINNER, M. D.,
MRS. C. A. KINNER,
MISS E. M. A. CASKEY,
Committee.

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CLASS IV.

The Committee on Class 4, Division E., Domestic Manufactures, report that they have awarded the premiums in this class, as follows:

No. 50. Patrick Blake, Detroit, pair of calf skin boots, 1st premium, ... $3 00

No. 51. Patrick Blake, Detroit, pair double soled boots, 2d prem. 2 00

No. 31. Ladue & Eldred, Detroit, 6 sides slaughtered sole leather, hemlock tanned, ... 4 00

No. 32. Ladue & Eldred, Detroit, 6 sides harness leather, ... 4 00

No. 34. Ladue & Eldred, Detroit, 6 sides upper leather, ... 4 00

No. 33. Ladue & Eldred, Detroit, 6 sides bridle leather, ... 4 00

No. 35. " " 6 calf skins, ... 4 00

No. 36. " " 6 kip skins, 1st premium .. 4 00

No. 150. E. Price, " 6 calf skins, 2d premium, .. 2 00

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No. 94. Eagle & Elliott, Detroit, frock over coat, Diploma and $4 00
No. 95, Eagle & Elliott, " dress coat, Diploma and..... 3 00
No. 97. " " vest,.....Diploma and 2 00
No. 107. Armstrong & Bro., Detroit, fur hats,....Diploma and 2 00
No. 80. R. L. Barrowman, Detroit, fur hats,.....Transactions.
No. 171. Geo. Winter, Detroit, silk hats,.....Diploma and 2 00
No. 107. Armstrong & Bro., Detroit, silk hats,.....Transactions.
No. 69. Hallock & Raymond, Detroit, cassimere pants, Diploma and 2 00
No. 53. Cullen Brown, Detroit, 2 saddles,.....Diploma and 3 00
No. 42. Weikle & Wisner, Detroit, suspenders, discretionary premium recommended.

All of which is respectfully submitted.

ALONZO NOBLE,
JABEZ FOX,
C. H. ROCKWOOD,
Committee.

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CLASS V.

No. 20. Wm. Shulties, Detroit, 4 marble mantle pieces,..... $5 00
No. 28. G. H. Shearer & Dewey, Detroit, 2 window sash,.... 2 00
No. 29. G. H. Shearer & Dewey, 1 panel door,..... 2 00
No. 41. Jas. Flower & Bro., 1 case brass work, recommended premium.
No. 57. Jno. Patton, Detroit, 1 light two seated carriage, Diploma and..... 10 00
No. 59. Jno. Patton, Detroit, 1 top buggy,.....Diploma and 6 00
No. 65. Colver, Haworth & Gilman, Detroit, 1 set cottage chamber furniture,..... 2 00
No. 78. Chas. Parsons, Pontiac, 1 double carriage, Transactions and 8 00
No. 79. Chas. Parsons, Pontiac, 1 single buggy,..... 5 00
No. 110 D. O. & W. S. Penfield, Detroit, Stewart's cook stove, Diploma.
No. 111. " " " parlor stove for wood, "
No. 112. " " " " " "

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No. 137. J. W. Tillman, Detroit, Mahogany bed stead,..... $5 00
No. 84. Webber & Stevens, Detroit, 2 rosewood sofas, Diploma and 2 00
No. 89. Webber & Stevens, Detroit, 1 rosewood centre table,.. 5 00
No. 87. " " " 5 parlor chairs,..... 5 00
No. 88. " " " 1 walnut book case,..... 5 00
No. 165. A. C. Fisk, Coldwater, 1 sulkey,..... 5 00
No. 12. Beecher, Rice & Ketchum, Detroit, spring mattrass, premium recommended.

All of which is respectfully submitted.

F. S. FINLEY,
HARVEY BUSH,
Committee.

DIVISION F.

CLASS I.—PAINTINGS, DRAWINGS, DAGUERREOTYPES AND MUSICAL INSTRUMENTS.

Report of Viewing Committee on Division F., Class 1, to the Executive Committee of the Michigan State Agricultural Society, made September 29th, 1854:

Your Committee deem it but just to the Artists whose works have been exhibited to their inspection, and to themselves, to express their deep regret, that the duties devolving upon them, had not been committed to persons of more cultivated judgment, and greater critical ability upon the subject of art, than any one of them possesses.

They can only say, that they have exercised their best judgment, and they submit the result of their examination and deliberations with great diffidence.

The number of oil paintings on exhibition is very small, but some are works of no common merit. They recommend that the first premium, for the best specimen of oil painting, by a Michigan artist, be awarded to the "full length portrait of General Cass," being No. 35. The committee are unanimous in thinking this a correct and happy likeness of the great original, and a work of rare merit.

They recommend that the second premium be awarded for "Land-

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scape View in the Clove," Catskill Mountains, being No. 39 on the list. This elaborate and carefully finished work has uncommon excellencies, mingled with some faults that a higher and more perfect culture, and a riper experience will enable the artist to overcome.

They recommend that the third premium be awarded for "a portrait of Mrs. Giddings," being No. 63 on the list. This portrait gives unmistakable evidence of the power of the artist to delineate the "human face divine" and a bright promise of future excellence.

There was but one specimen of animal painting by a Michigan artist, a "portrait of a horse from nature," being No. 60 on the list; but it is a work of undoubtable merit, and we recommend that the first premium be awarded for it.

There was but one specimen of cattle drawing, namely, the "Bull's Head," a very spirited and life like painting, being No. 41 on the list. If by a Michigan artist, we recommend that the first premium be awarded for it.

There were three collections of Daguerreotypes, by Michigan artists, all of great merit, and evincing the great perfection to which this wonderful art has been carried. We found it very difficult to decide between their several merits, but recommend that the first premium be awarded to Mr. G. E. Hall, and the second to Sutton & Brother of Detroit.

There was but one set of specimens of painting in water colors, No 154, but these were of such decided merit and beauty, that we cordially recommend that the first premium be awarded to them.

But one design for a farm house with plans, specifications, &c., was exhibited. In many respects this is an admirable design, and is conceived and executed with the skill of an artist and architect, but your committee unite in thinking that it has one serious defect. *It is too expensive a design.* We suppose the object of the Society in offering the premium, was not merely that the visitors at the exhibition might look upon a beautiful design, but that they had a practical object in view, to improve the style of agricultural architecture by placing before the farmers an ideal of farm buildings combining beauty and convenience, from which they might copy. To produce this effect it must be an ideal which can be made practical. The specifications show, that it will cost over $4,000 to build a house after this design, and over $4,800

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to build the out houses, barns, &c., making a total expense of nearly $9,000 for farm buildings. There is hardly a farmer in the State who would think of erecting any such buildings. If the artist will exercise his undoubted skill, in designing a set of buildings within the reach of our best farmers, he will meet the objects of the Society in offering the premium. We cannot recommend an award of a premium for the designs.

There were several articles for which we should have very gladly awarded premiums, had we possessed the power.

There were three portraits in pastel by St. Alary, that were not surpassed by any work of art on exhibition, and we cordially recommend to the executive committee that such a premium be awarded, as will evince their appreciation of the exquisite skill of the artist.

As we construe our powers, we were only at liberty to give three premiums for oil paintings other than animal and cattle paintings. The painting No. 1 on the list, "The Castle and Cathedral of Limburgh," we consider one of much more than ordinary merit, and well worthy of a premium, which we recommend to be given.

A "Fruit piece," No. 125, recommended itself highly to their notice, and is well entitled to the compliment of a premium.

The same is true of the painting of the "Castle Elz, next the Moselle," No. 2, a pen and ink sketch.

There are several drawings of elevations of public buildings, all by the same architect, that challenged our especial attention and admiration, and to our judgment, exhibited a high degree of architectural skill in the designs. In the improvement of architecture amongst us, especially in the architecture of our public buildings, we are all deeply interested. We therefore recommend these designs to the executive committee, as worthy of a premium.

There were also some remarkably meritorious specimens of imitations of "marble, rosewood and porphyry," No. 126, that deserve especial commendation.

No. 35. A. Bradish, Detroit, full length portrait of Gen. Cass, Diploma and $5 00

No. 39. C. H. Lum, Detroit, Landscape View in the Clove, Catskills Mountains, ... 5 00

No. 63. O. H. Moore, Kalamazoo, portrait of Mrs. Giddings, .. 3 00

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No. 60. O. H. Moore, Kalamazoo, portrait of a horse from nature,.....Diploma and $5 00

No. 41. C. H. Lum, Detroit, bull's head,.....Diploma and 5 00

No. 128. G. E. Hall, Detroit, 1 collection daguerreotypes, 1st premium,..... 2 00

No. 85. Sutton & Bro., Detroit, 1 collection of daguerreotypes, 2d premium,..... 1 00

No. 154. Miss M. Richardson, Pontiac, 4 paintings in water colors,.....Diploma and 5 00

E. St. Alary, Detroit, 3 pastel paintings, recommended discretionary premium.

No. 1. Chas. Schlickum, Detroit, 1 oil painting, castle and cathedral, Limburgh,.....discretionary premium.

No. 2. Chas. Schlickum, Detroit, Castle Elz, drawn with pen and ink,.....discretionary premium.

No. 125. Jno. Goodison, Detroit, 1 fruit piece, discretionary premium.

Nos. 3 to 7. Albert Jordan, Detroit, architectural drawing, discretionary premium.

No. 126. Jno. Goodison, Detroit, imitation Sienna marble, &c., discretionary premium.

All of which is respectfully submitted.

ALLEN GOODRIDGE,
C. J. WALKER,
THOS. H. GLENN,
Committee.

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CLASS II.—NEEDLE, SHELL AND WAX WORK.

The committee to whom was submitted the duty of awarding premiums to needle work, shell work, &c., would respectfully report, that upon the afternoon of the twenty-sixth instant, they duly organized and commenced their operations in examining articles, when they were driven from the ground by a flood of rain, unfortunate as it was annoying; but that upon the morning following they organized anew, when after a diligent and arduous labor of hours, they were enabled to present the following, as the result of an impartial examination:

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No. 25. Holmes & Co., Detroit, ornamental needle work, 1st premium, ... $3 00

No. 9. Bacon & Co., Detroit, ornamental needle work, 2d prem., 2 00

No. 136. Mrs. L. Beecher, Detroit, " " 3d " 1 00

No. 83. Mrs. C. Piquette & sister, Detroit, specimen worsted work, 1st premium, ... 3 00

No. 100. Mrs. M. H. Wooley, Detroit, specimen worsted work, 2d premium, ... 2 00

No. 141. Mrs. M. A. Holloway, Adrian, specimen worsted work, 3d premium, ... 1 00

No. 79. Mrs. T. F. Abbott, Detroit, ottoman cover, 1st premium, ... Downing's Cottage Residences.

No. 86. Mrs. D. R. Pierce, Detroit, ottoman cover, 2d premium, $2 00

No. 141. Mrs. M. A. Holloway, Adrian, " 3d " 1 00

No. 13. Miss Wall, Detroit, group of flowers, 1st premium, ... 3 00

No. 87. Miss E. Dunn, Detroit, " 2d " 2 00

No. 82. Mrs. H. Banta, " " 3d " 1 00

No. 84. Miss Carrie Sawyer, Detroit, worked collars, 1st prem., 3 00

No. 103. Mrs. W. W. Murphy, Jonesville, " 2d " 2 00

No. 112. Mrs. Hiram Rood, Pontiac, " 3d " 1 00

No. 86. Mrs. D. R. Pierce, Detroit, fancy chair work, 1st premium, ... Downing's Cottage Residences.

No. 141. Mrs. M. A. Holloway, Adrian, fancy chair work, 2d premium, ... $2 00

No. 32. Mrs. R. Chope, Detroit, ornamental shell work, 1st premium, ... 3 00

No. 33. Mrs. R. Chope, Detroit, ornamental shell work, 2d premium, ... 2 00

No. 102. Mrs. E. Nash, Detroit, ornamental shell work, 3d premium, ... 1 00

No. 80. Mrs. L. J. Simpson, Syracuse, N. Y., specimens wax flowers, 1st premium, ... 3 00

No. 14. Miss Bailey, Detroit, Mich., specimens wax flowers, 2d premium, ... 2 00

No. 101. Mrs. Mary Rofe, Detroit, specimen wax flowers, 3d premium, ... 1 00

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No. 21. Mrs. P. Klein, Detroit, specimen flowers other than wax, 1st premium, ... $3 00

No. 106. John Andrews, Detroit, specimen flowers, other than wax, 2d prem., ... 2 00

No. 24. Mrs. S. Weston, Detroit, specimen flowers, other than wax, 3d prem., ... 1 00

No. 142. Mrs. M. A. Holloway, Adrian, lamp mat, 1st prem., .. 3 00

No. 97. Mrs. J. Hendrickson, Detroit, lamp mat, 2d prem., ... 2 00

No. 114. Mrs. Hiram Rood, Pontiac, lamp mat, 3d prem., ... 1 00

No. 64. Mrs. M. Gouch, Pontiac, portfolio, ... 3 00

No. 105. Miss Mary M. Williams, Detroit, crochet doyley, ... 4 00

No. 148. Miss F. Choate, Jackson, crochet tidy, ... 3 00

No. 146. Mrs. D. Hunter, Walled Lake, crochet tidy, ... 2 00

No. 81. Mrs. Henry Miller, Detroit, worked skirts, 1st prem... 4 00

No. 55. Mrs. J. Starkweather, Ypsilanti, worked skirt, 2d premium, ... 3 00

No. 89. Mrs. E. Netherstell, Detroit, silk bonnet, 1st prem., ... 3 00

No. 149. E. Brown, Detroit, silk bonnet, 2d prem., ... 2 00

No. 139. Miss Sarah Cowen, Grand Blanc, embroidered coverlet, ... 2 00

No. 137. Mrs. L. Beecher, Detroit, embroidered coverlet, (silk,) 2 00

No. 91. Miss E. M. A. Carley, Ypsilanti, silk dress, discretionary prem.

No. 110. Mrs. H. Rood, Pontiac, papier mache stand, recommend prem.

No. 76. Mrs. S. W. Patchin, Detroit, specimens leather work, recommend prem.

No. 71. Miss E. Merryweather, Pontiac, rustic church made of silver and copper from Lake Superior, Downing's Cottage Residences.

The committee with pleasure state, that many specimens of needle work came under their examination, which solicited their admiration, and for which, (had they the authority,) they would have awarded premiums, and that prominent among these were the silk fringe and embroidery of Holmes & Co., and an infant's cloak, exhibited by the same firm. Also leather work numbered 76, and a work table of papier

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mache No. 110, all of which they would recommend to the Executive Committee for premiums.

All of which is respectfully submitted,

F. W. CURTENIUS,
MRS. DOCTOR DUFFIELD,
MRS. DOCTOR RUSSELL,
MRS. STRINGHAM,

Committee.

DIVISION G.

CLASS I.—FLOWERS.

Your committee on flowers respectfully report that they have performed the duties assigned to them—that they are sorry to state that the exhibition in this department has not been equal to those of former years, the severe drought of the season doubtless causing this result. The specimens on which premiums have been awarded, show that some skillful hand has supplied their thirst when denied from the hand of nature.

No. 106. Wm. Smael, Detroit, best variety cut flowers, professional, ... $3 00

No. 162. Hubbard & Davis, Detroit, 2d best variety cut flowers, professional, ... 1 00

No. 1. Wm. Balls, Detroit, best variety cut flowers, amateur, .. 3 00

No. 295. Miss M. T. Evanson, Detroit, 2d best variety cut flowers, amateur, ... 1 00

No. 244. Wm. Adair, Detroit, best and greatest variety of dahlias, ... Horticultural Review and 1 00

No. 323. Wm. Smael, Detroit, 2d best and greatest variety of dahlias, ... Transactions and 1 00

No. 61. Jno. Ford, Detroit, best 12 dissimilar blooms, Magazine of Horticulture and 1 00

No. 245. Wm. Adair, Detroit, best 12 dissimilar blooms, professional, ... 2 00

No. 107. Wm. Smael, Detroit, 2d best 12 dissimilar blooms, professional, ... 1 00

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No. 108. Wm. Smael, Detroit, best single dahlia,..... $2 00
No. 246. Wm. Adair, " 2d " 1 00
No. 248. " " best and greatest variety of roses, 3 00
No. 168. Hubbard & Davis, Detroit, 2d best and greatest variety of roses, (discretionary,)..... 2 00
No. 258. E. P. & F. Bradner, Redford, best 12 varieties phloxes, 2 00
No. 309. Wm. Balls, Detroit, 2d best 12 " 1 00
No. 161. Hubbard & Davis, Detroit, best variety verbenas,... 2 00
No. 62. Jno. Ford, " 2d " discretionary.
No. 160. Hubbard & Davis, " best variety indigenous flowers,..... 2 00
No. 109. Wm. Smael, Detroit, best variety green house plants, 4 00
No. 237. Geo. Crabb, Detroit, fine collection coxcombs,..... 2 00
No. 64. Jno. Ford, Detroit, best round boquet, Grey's Botany & 1 00
No. 249. Wm. Adair, Detroit, 2d best round boquet,..... 1 00
No. 63. Jno. Ford, Detroit, best flat boquet,..... 2 00
No. 307. Wm. Balls, Detroit, 2d best flat boquet,..... 1 00

MRS. STARKWEATHER,
MRS. CHARLES LEACH,
MISS McNIEL,

Committee.

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CLASS II.—APPLES.

The committee appointed to judge on the apples exhibited at the State Agricultural Fair and award premiums, report as follows: The amateur growths were in general, much better than the professional, excelling in number, variety and superior qualities, both the kind of fruit and their perfection of growth:

No. 187. J. M. Sanford, Grass Lake, best and greatest variety of winter apples, amateur,.....Transactions and $6 00
No. 100. A. Terry, Rochester, 2d best and greatest variety of winter apples, amateur,..... 5 00
No. 96. Wm. Maiden, Plank Road, 3d best and greatest variety of winter apples, amateur,.....Thomas' Fruit Book and 3 00

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No. 340. L. Bowerman, Detroit, best and greatest variety autumn apples, amateur, ... Transactions and $5 00

No. 73. Prince Bennett, Ypsilanti, 2d best and greatest variety autumn apples, amateur, ... 4 00

No. 80. Fred. Smith, Plymouth, 3d best and greatest variety autumn apples, amateur, ... Thomas' Fruit Book, and 2 00

Nos. 12, 13, 14 and 15. Linus & Case, Troy, best and greatest variety summer apples, amateur, Downing's Fruit and Fruit Trees and 5 00

No. 201. E. D. Lay, Ypsilanti, 2d best variety summer apples, amateur, ... Thomas' Fruit Book and 4 00

No. 206. Daniel Cook, Jackson, best 12 specimens winter apples, professional, single variety, ... Transactions and 6 00

No. 203. E. D. Lay, Ypsilanti, 2d best 12 specimens winter apples, professional, single variety, ... 5 00

No. 171. Hubbard & Davis, Detroit, 3d best 12 specimens winter apples, professional, single variety, Hovey's Magazine and 2 00

No. 199. E. D. Lay, Ypsilanti, best 12 specimens autumn apples, professional, single variety, ... Transactions and 6 00

No. 94. E. J. Bonine & East, Vandalia, 2d best specimen autumn apples, professional, single variety, ... 5 00

No. 19. Mrs. Geo. Tibbitts, Southfield, 3d best 12 specimens autumn apples, professional, single variety, Hovey's Magazine and 2 00

No. 215. B. Peirson, Livonia Center, best 12 specimens winter apples, amateur, single variety, ... 3 00

No. 36. Samuel Rappleyee, Ridgeway, 2d best variety winter apples, amateur, single variety, ... 2 00

No. 71. Prince Bennett, Ypsilanti, 3d best 12 specimens winter apples, amateur, single variety, ... 1 00

No. 216. B. Peirson, Livonia Centre, best 12 specimens autumn apples, amateur, single variety, ... 3 00

No. 73. Prince Bennett, Ypsilanti, 2d best 12 specimens autumn apples, amateur, single variety, ... 2 00

No. 188. Jas. Sanford, Grass Lake, 3d best 12 specimens autumn apples, amateur, single variety, ... 1 00

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Nos. 101 and 102. Albert Terry, Rochester, specimen spitzenberg apples.....premium recommended, $2 00

GEO. DUFFIELD,
Ch'n. of Committee.

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CLASS III.—PEARS, PEACHES, PLUMS, NECTARINES, APRICOTS, QUINCES, GRAPES, MELONS.

Your committee are amply repaid for the labor they have bestowed in discharging the duties assigned to them by the pleasure experienced in viewing the choice collection of fruits that have been presented for exhibition.

The great variety submitted by professional nursery men, is entitled to the highest commendation, and notwithstanding this great variety, your committee have rarely noticed a specimen incorrectly named.

It would be remarkable even in any of the eastern states, that as varied and complete a collection of all the fine varieties of pears and peaches could be presented, accompanied with the same degree of accuracy in designating varieties.

Abundant evidence is thus furnished that in the purchase of fruit trees for orchard or garden purposes, it is no longer necessary to pass beyond the limits of our own State to obtain all the kinds which we have heretofore sought with care and extra expense from abroad.

The beautiful specimens of fruit presented by amateur cultivators, exhibit nice discrimination and cultivated taste in the selection of the very best varieties, and your committee can only regret that in the vast amount presented, they may have possibly failed in their awards to notice isolated specimens of superior excellence.

AMATEUR LIST.

No. 303. M. S. Gillett, Port Huron, best and greatest variety good pears,.....Western Hort. Review and $5 00

Nos. 285, 286. Hiram Walker, Detroit, 2d best and greatest variety good pears,.....Horticulturist and 3 00

No. 95. E. J. Bonine & East, Vandalia, 3d best and greatest variety pears,.....Hovey's Mag. of Hort. and 2 00

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No. 204. E. D. Lay, Ypsilanti, best collection autumn pears, Landscape Gardening and Agriculture.

No. 123. Alex. Melvin, Detroit, 2d best collection autumn pears, Horticultural Review.

No. 316. T. G. Angell, Detroit, best 6 specimens autumn pears, $4 00

No. 222. S. L. Millis, Pontiac, best and greatest variety peaches, named &c., 5 00

No. 289. Hiram Walker, Detroit, 2d best and greatest variety peaches, named &c., Horticulturist and 2 00

No. 290. Hiram Walker, Detroit, 3d best and greatest variety peaches, named &c.

No. 344. J. R. Monroe, Paw Paw, best 10 specimens peaches, 3 00

S. T. Brown, Richland, 2d best 10 specimens peaches, Downing's Fruit and Fruit Trees.

No. 43. Mrs. S. Pitts, Detroit, best peck peaches, 3 00

No. 253. Wm. Adair, Detroit, 2d best peck peaches, 2 00

No. 318. T. G. Angell, Detroit, best collection plums, 3 00

Nos. 330, 331. H. B. Chapman, Hillsdale, 2d best collection plums, 4 varieties, 2 00

No. 283. Hiram Walker, Detroit, best 12 plums, Downing's Fruit and Fruit Trees.

No. 225. James Dougall, Windsor, C. W., best variety nectarines, 3 00

Geo. Updike, Jackson, ½ bushel nectarines, Downing's Fruit and Fruit Trees.

No. 219. Mrs. J. Palmer, Detroit, best 12 quinces, 3 00

No. 314. B. Phillips, Pontiac, 2d best 12 quinces, Hovey's Mag.

No. 93. Mrs. J. Winder, Detroit, 3d best 12 quinces, 1 00

No. 173. J. L. Stout, Troy, best peck quinces, 3 00

No. 264. J. L. Stout, Troy, 2d best peck quinces, 2 00

Nos. 218, 219. Mrs. J. Palmer, Detroit, best and most extensive collection native grapes, 5 00

No. 319. T. G. Angell, Detroit, best dish native grapes, 3 00

No. 350. Mrs. Wm. Harsha, Detroit, best dish foreign grapes grown in open air, 2 00

No. 351. J. Roberts, Detroit, best and most extensive collection foreign grapes, under glass, 5 00

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No. 320. T. G. Angell, Detroit, 2d best and most extensive collection foreign grapes, under glass, Allen on the Grape and $2 00

No. 156. Hubbard & Davis, Detroit, two specimens any variety watermelons, professional, 1 00

No. 137. E. R. Post, Detroit, two specimens any variety watermelons, amateur, 2 00

No. 138. E. R. Post, Detroit, best muskmelons, amateur, 2 00

No. 159. Hubbard & Davis, Detroit, best nutmeg melon, 2 00

PROFESSIONAL.

No. 233. Wm. Adair, Detroit, best and greatest variety good pears, Western Horticultural Review and $5 00

No. 170. Hubbard & Davis, Detroit, 2d best and greatest variety good pears, Horticulturist and 3 00

No. 223. J. Dougall, Windsor, C. W., best collection autumn pears, Landscape Gardening and Architecure·

Wm. Adair, Detroit, best autumn pears, 3 00

No. 192. J. T. Wilson, Jackson, best and greatest variety seedling peaches, Horticultural Review.

No. 211. Daniel Cook, Jackson, best and greatest variety plums, 5 00

No. 210. " " " " " nectarines, 3 00

Nos. 208, 209. Daniel Cook, Jackson, best and greatest variety peaches, 5 00

No. 169. Hubbard & Davis, Detroit, best and greatest variety quinces, 3 00

No. 352. E. T. Owen, Detroit, best and greatest variety grapes, 3 00

All of which is respectfully submitted,

H. G. WELLS,

Ch'n. of Committee.

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CLASS IV.—VEGETABLES.

The Committee on Vegetables, beg leave to report that they have taken great pains to examine the very large and beautiful collection of vegetables on exhibition the present season, and were gratified at the variety, size and perfection of the various articles, notwithstanding the great severity of the drought in the latter part of the season.

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The Committee have awarded the premiums as follows:

No. 44. Jno. Ford, Detroit, collection vegetables, 1st premium, Transactions and $5 00

No. 265. Hiram Walker, Detroit, collection vegetables, 2d premium, ... 3 00

No. 2. Wm. Balls, Detroit, 12 blood beets, ...Transactions and 2 00

No. 131. Stephen Lapham, Farmington, turnip-rooted beets, Tranactions and 2 00

No. 47. Jno. Ford, Detroit, 6 heads cauliflower, Transactions and 3 00

No. 3. Wm. Balls, " " " 1st prem., Transactions and 3 00

No. 3. Wm. Balls, Detroit, 6 head cauliflower, 2d premium, ... 2 00

No. 229. H. A. Young, 12 carrots, ... 2 00

No. 205. Mrs. G. W. Collins, Farmington, 12 parsneps, ... 2 00

No. 5. Wm. Balls, Detroit, 12 stalks celery, 1st premium, Transactions and 3 00

No. 115. Wm. Smael, Detroit, 12 stalks celery, 2d premium, 2 00

No. 51. Jno. Ford, Detroit, 6 vegetable eggs, ... 2 00

No. 279. Hiram Walker, Detroit, ½ peck white onions, Transactions and 2 00

No. 39. Saml. Rappleyee, Ridgeway, ½ peck yellow onions, ... 2 00

No. 34. A. Wood, Livonia Center, ½ peck red onions, ... 1 00

No. 267. Hiram Walker, Detroit, 1 peck table potatoes, 1st premium, ... 3 00

No. 250. Thomas Blocket, Roseville, 1 peck table potatoes, 2d premium, ... 2 00

No. 250. Thos. Blocket, Roseville, 1 peck table potatoes, 3d premium, ... 1 00

No. 281. Hiram Walker, Detroit, 3 marrow squashes, ... 2 00

No. 181. W. H. Lester, Utica, 3 crook neck " 2 00

No. 150. Hubbard & Davis, Det., 3 vegetable marrow squashes, 1 00

No. 22. M. Winterhalter, Detroit, 2 squashes, Transactions and 1 00

No. 7. Wm. Balls, Detroit, ½ peck tomatoes, Transactions and 2 00

No. 273. Hiram Walker, Detroit, 12 roots salsify, ... 1 00

No. 271. " " 1 peck Lima beans, 1st prem., 3 00

No. 306. Wm. Balls, Detroit, 1 peck Lima beans, 2d premium, 2 00

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No. 56. Saml. Rappleyee, Ridgeway, 1 peck Lima beans, 3d premium, ... $1 00

No. 104. Bonine & East, Vandalia, 1 peck sweet potatoes, 1st prem., ... Transactions and 3 00

No. 1. Horatio Lee, Southfield, 1 peck sweet potatoes, 2d prem., ... 2 00

No. 155. Hubbard & Davis, Detroit, 6 stalks rhubarb, ... 1 00

No. 29. Wm. Bramble, Royal Oak, 2 pumpkins, recommend prem.

Nos. 90, 91, 92. S. M. Bartlett, Lasalle, rutabagas, turnips &c., field crops, recommend premium of 3 00

Nos. 97, 98, 99. Fred. Smith, Plymouth, 3 lots potatoes, recommend prem. of 3 00

No. 154. Hubbard & Davis, Detroit, 1 doz. ears Stowell's evergreen sweet corn, recommend prem. of 1 00

No. 239. Thos. Smith, Hamtramck, 6 cabbages, recommend prem. of 1 00

No. 278. Hiram Walker, Detroit, 3 heads red Dutch cabbage, recommend premium of 1 00

No. 329. H. B. Chapman, Hillsdale, 1 sweet pumpkin, (only one offered, well worthy,) recommend prem. of 1 00

No. 157. Hubbard & Davis, Detroit, 3 citrons for preserves, (very fine,) recommend prem. of 1 00

The committee would recommend that hereafter the judges upon vegetables for the table should be appointed from vegetable growers, instead of farmers, and that the judges upon field crops for cattle should be appointed from farmers.

JOHN WINDER,
GEO. W. COLLINS,
Committee.

DIVISION H.

CLASS I.—GRAIN, FLOUR, SEEDS AND BREAD.

The committee on grain, flour, seeds and bread, respectfully report that they have examined the various articles which were presented for

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their inspection, but owing to the fine quality of some articles, and the slight difference if any in the specimens, it has been difficult to decide which were the most deserving, but we have endeavored to do justice to all, and have awarded the premiums as follows :

No. 55. H. B. Chapman, Hillsdale, best specimen seed wheat, 1st prem., ... $5 00

No. 63. G. P. Thurston, Clarkston, 2d best specimen seed wheat, 2d prem., ... 3 00

No. 52. T. F. Gerls, Troy, best specimen white oats, 1st prem., 3 00

No. 58. H. B. Chapman, Hillsdale, 2d best specimen white oats, 2d prem., ... 2 00

No. 28. D. M. Uhl, Ypsilanti, 3d best specimen white oats, 3d prem., ... 1 00

No. 5. S. M. Bartlett, Lasalle, best 12 ears Indiana dent corn, 1st prem., ... Transactions and 5 00

Of this variety of corn your committee have some personal knowledge, and earnestly recommend it to the notice of the farmers of Michigan, as being a variety of corn well suited to our climate, yielding equal, if not better than any other, coming quick to maturity and standing the severe drought of our past summer better than any other kind known to your committee.

No. 18. S. M. Bartlett, Lasalle, best specimen white dent corn, 1st premium, ... Transactions and $5 00

No. 4. S. M. Bartlett, Lasalle, best 2 bushels ears yellow dent corn, 1st prem., ... Transactions and 5 00

No. 59. H. B. Chapman, Hillsdale, 2d best 2 bush. ears yellow dent corn, 2d prem., ... 3 00

No. 20. Prince Bennett, Ypsilanti, best 2 bushels marrowfat peas, 1st prem., ... Transactions and 5 00

No. 47. R. C. Gunn, Southfield, 2d best 2 bushels marrowfat peas, 2d prem., ... 3 00

No. 21. Prince Bennett, Ypsilanti, best 2 bushels white beans, 1st prem., ... Transactions and 5 00

No. 3. S. M. Bartlett, Lasalle, 2d best 2 bushels white beans, 2d prem., ... 3 00

No. 56. H. B. Chapman, Hillsdale, 3d best 2 bushels white beans, 3d prem., ... 2 00

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No. 36. J. L. Stout, Troy, best timothy seed, 1st prem., ... $5 00
No. 30. J. L. Stout, Troy, 2d best timothy seed, 2d prem., ... 4 00
No. 46. R. C. Gunn, Southfield, 3d best timothy seed, 3d prem., ... 3 00
No. 38. Jno. Gould, Dearborn, best flax, 1st premium, Transactions and 5 00
No. 37. Edward Gare, Redford, best 1 bushel black Egyptian barley, 1st prem., ... Transactions and 3 00
No. 50. Francis Leslie, Dearborn, best corn bread, 1st prem., .. 2 00
No. 49. Mrs. H. Walker, Detroit, best yeast bread, 1st prem., 2 00
No. 40. Jno. Kirk, Detroit, 2d best yeast bread, 2d premium, 1 00
No. 31. Owens & Barnes, Detroit, best specimen baker's bread, 1st premium, ... 2 00
No. 10. Owens & Barnes, Detroit, Boston crackers; No. 11. butter crackers; No. 12. lemon crackers; No. 9. soda crackers; No. 13. ship crackers, ... Diploma.

Owing to the late hour at which your committee obtained their books, and instructions, we fear some articles worthy to be recommended for premiums, may have been overlooked.

All of which is respectfully submitted.

A. J. HERVEY,
WM. H. WELLS,
Committee.

DIVISION I.

MISCELLANEOUS ARTICLES.

Your committee on miscellaneous articles, to whom was entrusted the duty of examining and deciding on the merits of the articles offered for exhibition, beg leave to report that after an arduous and thorough inspection, and positive proof of the excellence of some of the articles well attested by the committee, they have decided to award the following premiums, and are highly gratified to state their pleasure in beholding so fine a show, and in giving their full approval to the following articles:

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No. 2. J. V. Ruehle, Detroit, lot fancy soaps, ... Silver Medal.
No. 3. F. P. Mather, " case glass and china ware, Diploma and $1 00
No. 4. F. C. Hannibal, Detroit, atmospheric saw strainer, ... Diploma,
No. 7. E. Wyncoop, " self-heating smoothing iron, ... 1 00
No. 8. J. P. Earle, " show case, ... Transactions.
No. 9. Jno. McCurdy, " portable steam engine, Diploma and 5 00
No. 10. Jno. McCurdy, Detroit, shingle machine, Diploma and 5 00
No. 11. " " 1 doz. shingles, " and 2 00
No. 12. Jas. R. Cunningham, Detroit, model steam boat, Silver Medal.
No. 13. A. McKibben & Co., " 2 pearl mantles, ... Diploma.
Nos. 14 and 15. " " water coolers, ... Diploma.
No. 19. O. Goldsmith, Detroit, case of segars and tobacco, Diploma.
No. 20. B. Lee, " jar of candy, ... 2 00
No. 22. Wm. Phelps, " case of fancy goods, ... Transactions.
No. 23. C. G. Blindbury, Detroit, lot dressed lumber, Diploma and 5 00
No. 24. Thos. R. Bailey, Lockport, N. Y., Bailey's turning lathe; No. 25. Bailey's bed rail machine; No. 26. Bailey's bed pin machine, ... Diploma.
No. 28. Wm White, Newport, bottle white currant wine, ... 1 00
No. 33 to 43. O. Bellows, Detroit, lot India rubber goods, Transactions and 5 00
No. 46. Geo. H. Buck, Detroit, carved eagle in wood, ... Diploma.
No. 48 to 70. Wm. Wingert, Detroit, large collection rifles, guns, pistols, &c., ... Silver Medal and Transactions.
No. 73. T. M. Cook, Detroit, case Sunday School Library, ... 5 00
No. 77. A. McKibben & Co., Detroit, Hobbs' hall door lock, Transactions.
No. 78. A. McKibben, & Co., Detroit, 12 apple-parers, ... Transactions.
No. 81. M. H. Webster, Detroit, school house and station bells, Diploma.
No. 83. Edward Ingersoll, Detroit, ½ bushel millett, ... Transactions.
No. 84. M. H. Hickock, Detroit, patent lumber counter, ... Diploma.
No. 85. C. Piquette, Detroit, case gold pens, ... Transactions.
No. 86. T. B. Leavenworth, Detroit, case silver spoons, ... Diploma.
No. 87. Wm. Gooding, Detroit, row boat, ... Diploma.

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No. 80. Palmer & Whipple, Detroit, specimens book binding, Silver Medal.

No. 90. Jas. R. Cunningham, Detroit, model yacht, ... $2 00

No. 95. Wm. Fewins, Detroit, Fewins' hair dye, ... Diploma.

No. 96. to 105. Rufus Brown, Detroit, lot India rubber goods, Diploma.

No. 106. Henry Metz, Detroit, composition roofing, ... Silver Medal.

No. 107 to 112. E. C. Wilder, Detroit, case cutlery &c., Silver Medal.

No. 114. M. H. Webster, Detroit, Herring's safe, ... Diploma.

No. 117. Rev. Z. Cook, Farmington, case stuffed birds, ... $1 00

No. 120. H. M. Anthony, Cleveland, O., specimen drain brick, Diploma.

No. 125. D. J. Pencille, Detroit, specimen chirography, ... Transactions.

No. 128. D. O. & W. S. Penfield, Detroit, portable forge, ... Diploma.

No. 129 to 138. D. O. & W. S. Penfield, Detroit, lot miscellaneous articles, ... Silver Medal.

No. 140. C. & P. Mellus, Detroit, collection of saws, ... Diploma.

No. 141. W. B. Wadly, Royal Oak, 2 fish nets, ... $1 00

No. 142. Samuel Rappleyee, Ridgeway, bottle of Elder wine, .. 1 00

No. 147. Jas. Whitcomb, Detroit, model railway safety switch, Diploma.

No. 149. Richmond & Backus, Detroit, railroad statistic book, do

No. 153. Hiram Walker, Detroit, bottle tomato catsup, ... $2 00

No. 157. Mrs. W. F. Cole, Detroit, 6 bottles catsup, ... 6 00

No. 164. E. W. Hersey, Oakland, 1 bottle white Currant wine, 1 00

No. 165. E. W. Hersey, Oakland, 1 bottle Cherry wine, ... 1 00

No. 167. F. O. Wilder & Bro., Detroit, melodeon, ... Diploma.

No. 174. J. R. Grout, Detroit, mass native copper, ... $5 00

Nos. 174, 182. J. R. Grout, Detroit, specimens copper, &c., ... Diploma.

No. 183. Paul Wolff, Detroit, spring mattrass, ... Diploma.

No. 184. Perry & Beardley, Wyoming, N. Y., patent rope machine, ... Diploma.

No. 185. P. J. Franz, Detroit, hose, plaster paris, patent roofing, &c., ... Diploma.

No. 201. G. B. Pomeroy & Co., Detroit, 2 frames, specimens printing.

J. H. BUTTERFIELD,
J. P. MUSSEY,
CHAS. PARSONS,
HENRY METZ,
Committee.

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REPORT OF THE COMMITTEE ON ESSAYS.

The committee on essays beg leave to report that papers on the following subjects, have been submitted to their consideration:

An essay on the cultivation and management of Clover.

An essay on the cultivation of the Potato.

An essay on the cultivation of Ruta Bagas.

And also several papers which cannot properly be called "essays," on the following subjects:

"On Wood Lands," "Prolific Corn," "Pure Water for Cattle," "Best situation for any Orchard," "Protection of Birds," "Preservation of Timber," "Increase of Insects" and "The culture of the Flat Turnip."

After a careful examination of these productions, the committee have concurred in recommending one of them only for a premium. This is the "essay on the cultivation and management of Clover," by Edward Mason, to whom they recommend a premium of fifteen dollars.

JOHN S. BAGG,
JOHN D. PIERCE,
SANFORD M. GREEN,
F. W. CURTENIUS,
Committee.

Premimus awarded by the executive committee, at their meeting, December 12, 1854.

POTATO ROT.

Report of the committee on the culture of the Potato, as recommended by Messrs. Roberts, of Washtenaw county, Mason, of Wayne county and Chandler, of Lenawee county; each claiming the premium of $100 00, as offered by this Society, "for satisfactory evidence produced to the executive committee, at its annual meeting in December, 1854, of a discovery of the cause and a permanent cure of the potato rot."

Your committee would respectfully report that they have listened with much attention to the theories of the above named gentlemen, and examined all the testimony furnished them, for the purpose of giving

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the utmost satisfaction and at the same time not to endorse anything of a theoretical nature, without undoubted evidence of successful results.

Mr. Mason makes the following statements, which are condensed from his printed and written essay, as furnished to the committee:

First. The cause of Potato Rot.

"It is caused by electricity; it begins on the leaves and extends gradually to the stems and tubers:

"That potatoes raised from the seed of the apple, or berry, are as liable to be destroyed as those raised from sets:

"That it never commences in the old seed:

"That the poison is conveyed in rain water, and dews, and generally appears after thunder storms."

That electricity exists in the air, all admit; that it is essential to life, to the growth and perfection of plants, and to the existence of everything in the animal and vegetable world is also certain. We claim now on the start, that the laws of Nature are always uniform; that they do not vary like the wild schemes of restless man—that they are the same to day, yesterday, and forever. In examining leaves, stalks, and disease of "small potatoes," we are too apt to be seized with a one idea principle in regard thereto, and forget that nature is perfection; that she does all things well, that she never causes disease or suffering; but that it is a violation of nature's laws which bring disastrous results.

That there is a constant action of electrical fluid in the atmosphere we will admit, and at the same time claim it to be absolutely necessary for the prolongation of life, and for the wants of everything upon the surface of the earth. Has there been any great change in the constituent parts of the atmosphere within the last one hundred years? If so, our savans have not ascertained the fact. Besides, is it not in direct violation of every law of nature to suppose that rain water, the purest in the world, and dew still purer, and sweeter if possible, contain in their natural state, or when consumed by plants, the least poison. Does nature act in this way? Does she kindly permit the plant to grow and then, instead of refreshing it with the dews of heaven, send disease and death?

Mr. Mason's remedies are, to plant on dry land before the tubers sprout, use properly prepared manure, plow the ground deep, keep the

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water from standing about them, and have them ripe if possible before the blight comes.

Mr. Chandler's views of the cause of the potato disease, partially coincide with those already expressed, further adding that keeping potatoes out of the ground seven months in the year is absolutely injurious to successful cultivation.

The committee feel somewhat delicate, but are obliged to say that Mr. Chandler's theory lacks two essential particulars:

First originality; second, evidence to substantiate.

This committee would report that the same views in regard to the cause of the potato rot, has been brought before the society several previous years by Mr. Roberts, and the originality of the discovery, as claimed, must be awarded to him.

Mr. Chandler furnishes no satisfactory evidence of the success of his theory, and we would recommend to him to pursue farther investigations, as this subject is of great importance.

Mr. Roberts fails in proving the cause of the potato disease, but offers many valuable suggestions in regard to prevention. That he has succeeded in improving the potato, and preventing the rot, so far as he is concerned, is abundantly proved. But it must be recollected that the rot has not been bad for the last year or two, and that his experiments have been conducted under the most favorable circumstances.

In view of the favorable results of Mr. Roberts' system of culture, we would recommend that a discretionary premium of twenty dollars be awarded to him, to assist him in further prosecuting his inquiries.

And the committee would recommend that the premium of $100 00 as offered by this society, for satisfactory evidence of a discovery of the cause and a permanent cure of the potato rot, be continued.

J. W. DICKINSON,
SAML. M. BARTLETT,
JUSTUS GAGE,
Committee.

FIELD CROPS.

The committee on field crops report that but one entry has been made in that class, viz: a crop of carrots, by S. M. Bartlett of Lasalle,

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Monroe Co., and that having examined the statements of Mr. Bartlett in reference thereto, we think him entitled to, and therefore we award him the first premium for a crop of carrots, $5 00.

CARROTS.—STATEMENT OF S. M. BARTLETT.

Statement of Carrot Crop entered for premium at the Michigan State Fair, for the year 1854.

The lot contains 42 rods of ground, has had carrots on it four successive crops; was plowed twice this spring, one foot deep; was sown in drills 18 inches apart, on the 18th day of May; the quantity of seed ¼ lb.

Cost of plowing and planting, with seed,	$2 00
1854, June 1. To 1 day's hoeing,	1 00
" " 30. To 1½ days' hoeing and thinning,	1 50
" July 2d. 1 day's hoeing and thinning,	1 00
" " 3d. 1 day's hoeing and thinning,	1 00
" " 29. 1 day's hoeing,	1 00
" Aug. 24. 1 day's hoeing,	1 00
	$8 50

This crop was gathered on the 2d and 3d days of November; the yield of 40 rods or ¼ of an acre was 236 bushels. The cost of gathering was one dollar per hundred, making the cost of raising and storing 4 cents and 6-10 per bushel. They are worth according to my experience nearly or quite as much per bushel as oats for feeding purposes.

S. M. BARTLETT.

LASALLE, MONRE CO., MICH., NOV. 12th 1854.

AWARDS TO COUNTIES.

The commitee on awards to county Agricultural Societies, would respectfully report that the amount of cash premiums taken at the State Fair, by the counties herein named, with the respective population of each as taken from the census of 1850, is as follows:

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County.	*Population.*	*Premiums.*
Branch,	12,472	$135 00
Calhoun,	19,169	130 00
Kalamazoo,	13,179	101 00
Hillsdale,	16,159	161 00
Washtenaw,	28,569	384 00
Wayne,	42,765	961 00
Macomb,	15,532	208 00
Jackson,	19,433	165 00
Lenawee,	26,380	76 00
Oakland,	31,267	246 00
Monroe,	14,695	48 00
Lapeer,	7,026	46 00
Shiawassee,	5,233	21 00
Cass,	10,506	30 00

Your committee would report in favor of awarding to Hillsdale county, twenty copies of the Transactions as offered in the premium list, for taking the greatest amount of premiums in proportion to population and facilities for getting to the Fair.

Your committee would also report that sufficient evidence of the best organized county society, has not been presented, and recommend that no premium be awarded, but that the same premium be offered for the ensuing year.

J. W. DICKINSON,
H. METZ,
JOHN STARKWEATHER,
Committee.

MANAGEMENT OF FARMS.

Committee to examine farms and report to the executive committee at its annual meeting in December:

S. M. BARTLETT, Lasalle, Monroe county,
A. Y. MOORE, Schoolcraft, Kalamazoo county,
C. W. GREEN, Farmington, Oakland county.

Premiums will be awarded by the executive committee, at its annual meeting, in December, 1854.

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For the best cultivated farm, reference being had to the cultivation, stock, improvements, expenses and products, &c., ... $50 00
For the 2d best do., ... 30 00
For the 3d best do., ... 20 00
For the 4th best do., ... 10 00

Any person making application for the premiums must answer the following questions.

The object in requiring answers to these questions being to elicit information, it is expected the answers will be written out as much in detail as possible.

All who furnish full answers to the questions will receive premiums in addition to the premiums offered above, consisting of the Society's Diploma, and one or two volumes of the Society's Transactions, according to the value of such reports:

SOILS, &C.

1. Of how much land does your farm consist? and how much wood, waste, and improved land respectively?

2. What is the nature of your soil and sub-soil? Is there limestone in it?

3. What do you consider as the best mode of improving the different kinds of soil on your farm? of clay, if you have it? of sandy soil, and of gravelly soil? Answer respectively.

4. What depth do you plow? What effect has deep plowing had on your various soils?

5. Have you made any experiments to test the difference in the succeeding crop, between shallow, common, or deep plowing?

6. Have you used the double, or sub-soil plow? and what have been its effects on different soils and crops? Have you drained any of your lands? if so, what soils, and with what results?

7. What trees and plants are indigenous to your soil? Give the name of each.

MANURES.

8. How many loads of manure (30 bushels per load) do you usually apply per acre? How do you manage your manure? Is it kept under cover, or are there cellars under your barns or stables for receiving it?

9. How is your manure applied; whether in its long or green state,

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or in compost? For what crops, or under what circumstances do you prefer using it, either in a fresh or rotten state?

10. Have you used lime, plaster, guano, salt, or any other substance not in common use as manure? In what manner were they used, and with what results?

TILLAGE CROPS.

11. How many acres of land do you till; and with what crops are they occupied, and how much of each crop?

12. What is the amount of seed planted or sown for each crop, the time of sowing, the mode of cultivating, and of harvesting, and the product per acre? Have any insects been found injurious to your crops? If so, describe them, and the remedies adopted.

13. How deep do you have manure covered in the earth for different crops and different soils?

14. Have your potatoes been affected with any peculiar defect or disease, and have you been able to discover any clearly proved cause for it, or found any remedy?

GRASS LANDS, &C.

15. What kind of grasses do you use? How much seed of clover or the various kinds of grass do you sow to the acre? At what season of the year do you sow? and what is the manner of seeding? What kinds of grass are best adapted to lands used for dairy purposes?

16. How many acres do you mow for hay, and what is the average product? At what stage do you cut grass, and what is your mode of making hay?

17. Is any of your mowing land unsuitable for the plow, and what is your mode of managing such land?

18. Have you reclaimed any low, bog or peat lands? What was the mode pursued, the crops raised, and what success?

19. Have you succeeded in eradicating the weeds from your farm? If so, by what methods, and what weeds are most troublesome?

DOMESTIC ANIMALS.

20. How many oxen, cows, young cattle and horses do you keep, and of what breeds are they?

21. Have you made any experiments to show the relative value of

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different breeds of cattle or other animals for particular purposes, and with what results?

22. What do you consider the best and cheapest manner of wintering your cattle; as to feed, watering and shelter?

23. How much butter and cheese do you make annually, from what number of cows, and what is your mode of manufacture?

24. How many sheep do you keep? Of what breed or breeds are they? How much do they yield per fleece, and what does the wool bring? How many of your sheep usually produce lambs, and what number of sheep are usually reared? How much will your sheep or lambs sell for per head to the butcher?

25. What do you consider the best and cheapest manner of wintering your sheep, as to food, water and shelter? How many in proportion to your flock (if any) do you lose during the winter?

26. How many swine do you keep? of what breed are they? how do you feed them? at what age do you kill them, and what do they weigh when dressed?

27. What experiments have you made to show the relative value of potatoes, turnips, and other root crops, compared with Indian corn, or other grain, for feeding animals, either for fattening or for milk?

FRUIT.

28. What is the number of your apple trees? Are they of natural or grafted fruit, and chiefly of what varieties?

29. What number and kind of fruit trees exclusive of apples, have you; and what are among the best of each kind?

30. What insects have attacked your trees, and what method do you use to prevent their attacks?

31. What is your general management of fruit trees?

32. What other experiments or farm operations have produced interesting or valuable results?

FENCES, BUILDINGS, &C.

33. What is the number, size, and general mode of construtions of your farm buildings, and their uses?

34. What kind of fences do you construct? What is the height and length of each kind, and their cost and condition? Have you construc-

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ted any wire fences? If so, what has been its cost, and what its advantages, and how made?

35. To what extent are your various farming operations guided by accurate weighing and measuring? And to what degree of minuteness are they registered by daily accounts?

36. Do you keep regular farm accounts? Can you state the annual expense in improving your farm, and the income from it, with such precision that you can at the end of the year strike an accurate balance of the debt and credit? Would not this practice conduce very much to close observation, careful farming, and in the end much improve your system, as well as better your fortune?

37. Give the annual receipts and expenditures on your farm, specifying each.

REPORT OF COMMITTEE ON FARMS.

The committee to whom was assigned the duty of examining Farms entered for the State Society's premiums, submit the following report:

Agreeably to previous arrangement, the committee met on the 29th of August, 1854. The first farm examined, was that of H. B. Chapman, of Reading, Hillsdale county. This farm is comparatively new, Mr. C having settled on it in the year 1847; it was then heavily timbered, and remote from any settlement. It now exhibits an advanced state of culture and careful management. It is judiciously divided in lots, by fences of extraordinary height, (unusually high your committee think). We could not fail to remark the cleanly and thorough cultivation of the growing crops, which were very fine. The fence rows were free from weeds and bushes, the orchards in fine condition, the barns well finished and commodious, exhibiting in their construction, many characteristics of an inventive and thinking mind. This farm as a whole, exhibits a rare instance of Yankee go-a-headativeness. Your committee were surprised to learn that all the improvements were the result of a single pair of hands, almost unaided by other capital. Mr. C. has laid about two hundred rods of under-drain, the result of which exceeds his most sanguine expectations. He gives this method of draining his unqualified approval. Mr. C's house is such as the first settlers

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usually build, and there are as yet surrounding it, few of the accessaries of a pleasant farm house. He informed us, however, that the ensuing spring he would build a house more suited to his present improved fortunes.

The next farm visited was that of Godfrey Knight, Esqr., of Prairie Ronde. This is one of the most beautiful prairie farms in the State, with a soil of surpassing fertility, naturally dry and easily cultivated, adapted to the production of grain, fruit and vegetables in all their varieties. Like most prairie farms, this is laid off in large fields, with fences scarcely second rate. Unlike others, the farm buildings were well constructed and in excellent order. The orchard is very extensive, and embraces most of the approved varieties of the apple, pear, peach, &c. Your committee here saw an apple tree hedge; in regard to its utility, your committee were divided in opinion. The crop on this farm did not appear so luxuriant as might have been expected from a soil so genial, but the prevailing drought was undoubtedly the accidental cause. The greater portion of Mr. K.'s farm lies in grass, 44 acres only (of 160) being cropped the present season, and that mostly in corn.

After a careful examination of the premises, and a long talk with the proprietor, we could not discover anything worthy of particular remark in Mr. K.'s mode of cultivation; but we have each a pleasing remembrance of his hospitality, and the pleasant evening we passed with his family.

We next visited the farm of Justus Gage, of Dowagiac, Cass county. This farm contains 230 acres. The improved portions present a rolling surface, the soil sandy gravel and sandy loam; the sand predominating gives it the appearance of being naturally poor and unproductive, compared with prairie or timbered lands, but with the careful treatment of the owner, during an occupancy of twelve years, this farm now shows a luxuriance of crop scarcely equalled in more favored localities. Mr. G. has thirty acres of corn that seem to have suffered very little from drought, and which promises an abundant yield. His potatoes were unusually fair, and his second growth of clover was greatly superior to any other we saw on our route. The barns and out-buildings seem well constructed, and the former were well filled. The house (nearly new) is an excellent specimen of the Farm-Cottage style, roomy, airy, and convenient, planned less for show than use, yet not devoid of architec-

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tural beauty. The whole, with fine old shade trees and a wilderness of shrubbery and vines, presents a picture of a rural home, such as many dream of, and but few realize. The intelligence and kindly feeling pervading this household, are sure indications that the "mind as well as the soil is cultivated" here.

The last farm on our list was that of J. S. Tibbitts, of Plymouth, Wayne county. This farm contains 80 acres, 65 improved. We could scarcely judge of Mr. T.'s mode of cultivation, as only some $2\frac{1}{2}$ acre were under the plow, the remainder being in meadow and pasture, or as Mr. T. expressed it, resting.

The buildings on this farm are well got up, of good material, giving an air of permanence and durability well worthy of imitation. The stock is of good quality and in fine condition. The fences are high and strong, and show much taste and finish in their construction. The whole appearance of the farm indicates a goodly degree of thrift in the owner, and an unusual amount of attention to external effect.

Your committee being without instructions from the board, were obliged to exercise ther own discretion, to a greater extent than was pleasant, in awarding premiums.

In the absence of precedents, we were guided by our own pre-conceived notions of what a premium farm should be, and however inclined we might be to differ in opinion upon matters of less importance, we happily agreed in the following characteristics:

1st. Such farm should exhibit neatness of cultivation, and in its management, due regard to two permanent ends, toward the continued or increased fertility of the soil, and a remunerative return for the labor, in the resulting crop.

2d. It should be devoted to no dominant crop, or single idea, but should embrace all the popular branches of farm interest, as this naturally leads to system and due rotation of crops, which last point your committee deem of great importance.

3d. It should exhibit good taste and judgment in the location, construction, and management of its buildings; avoiding lavish expenditure for mere show, they should wear the aspect of quiet and repose in keeping with the "even tenor" of farm life. In short a first premium farm should be in all respects a model country home.

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With these views we do not award the first premium, having seen no farm that sufficiently combines all the above requisites.

We award the 2d premium to Justus Gage, of Dowagiac, Cass Co.

The 3d to H. B. Chapman, of Reading, Hillsdale county.

The 4th to J. S. Tibbitts, of Plymouth, Wayne county.

The statements of Messrs. Gage, Tibbitts and Chapman, accompanying and forming a part of this report are full and explicit in regard to the method pursued by each.

Your committe saw many farms on their route that ought to have been entered for competition—among them were those of Mr. Uhl, of Superior, Washtenaw county, and Mr. Linden, of Canton, Wayne Co.

The first exhibits fine cultivation and rare energy in the proprietor.

The second is worthy of note for its extensive and excellent arrangement for stock.

The committee, before closing this report, would take occasion to congratulate the State Society, and the farmers of Michigan, on the evidences of progress and improvemant everywhere visible. We are confident that a high destiny awaits the agricultural class in Michigan. If we are true to ourselves, a few more efforts and still fewer years, will make us the Premium Agricultural State.

S. M. BARTLETT,
A. Y. MOORE,
C. W. GREEN,
Committee on Farms.

March, 1855.

JUSTUS GAGE'S STATEMENT.

To the Executive Committee Michigan State Agricultural Society:

GENTLEMEN—In reply to the various questions addressed to me as one of the applicants for premiums on farms, I respectfully submit the following replies:

1. My farm consists of 230 acres of land; 100 of which is woodland, held in reserve for timber; 100, improved land, and 30 acres marsh, and swamp land partially reclaimed.

2. The soil of the uplands consists of sandy loam and gravel; in some

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places stony, and some light sandy soil. There is no limestone in it, yet there appears to be a sufficiency of lime in calcareous particles, intermingled with the soil for all agricultural purposes.

3. So for as my experience goes, the best method for improving the quality of sandy, gravelly, and loamy soils, is by a rotation of crops of corn, wheat and clover, and a liberal use of plaster and barn-yard manure. In this course I would recommend one crop of corn on clover sod, then one crop of wheat, then seed to clover, letting this last remain for meadow or pasture for two or three years, then follow with corn and wheat as before. A course of this kind cannot fail to render a sandy, gravel, or loamy soil of the very best quality.

4. I plow from eight to nine inches deep as an average; with the intention of deepening this by degrees. I am of the opinion that very deep plowing, all at once, on such soil as above described, must tend to diminish, rather than increase the crops immediately succeeding, by throwing up a soil too destitute of ingredients for the proper nourishment of plants; the subsoil being of the same general composition with that of the surface. Farmers in tilling such lands should increase the depth of their furrow only in proportion as they increase the quality of their soils, by a judicious rotation of crops and the application of proper fertilizers. The effect of thus deepening the furrows on my different soils, has uniformly been good. In wet seasons, it enables the surplus water to settle so far below the surface as not to injure the crop; and in extreme dry seasons, the roots of plants can easily penetrate to the rising moisture from below.

5. The only experiments I have made as to effects of different kinds of plowing upon a succeeding crop, have been of a general character, consisting chiefly in observations and comparisons as to the quantity and quality of my crops, one year with another, as I have gradually deepened my furrows from year to year.

6. I have used only the common two horse plow, after the first breaking up of my new lands.

I commenced draining my low grounds two years ago. The soil is marsh and swamp muck from two to three feet deep, resting on a subsoil of marl and sand or blue clay. My mode of drainage has been by common open ditches; the main ditch four feet wide at top, two at bottom, and two feet deep—the lateral ditches varying in width and depth

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according to the nature of the ground and the quantity of water to be let off. I am at a loss in determining the best method for managing these ditches. If left open they are much in the way, and are liable to fill in; besides being dangerous to my cattle in their attempts to cross them. I have thought of various methods of converting these open ditches into underdrains, or blind ditches as they are sometimes called, but as yet have adopted but one, which has been recommended to me by S. M. Bartlett of Lasalle.

I take two oak boards twelve feet long, seven inches wide, and one inch thick, and nail them together so as to form a trough in the shape of the letter V. These I lay in the bottom of the ditch with the point of the trough upward thus: Λ, the hard bottom of the ditch forming the base of an acute angled triangle having equal sides of seven inches each. I have laid several rods of ditch in this way with satisfactory results so far. The only difficulty I apprehend in making such ditches effectual for the purpose of common drainage, is a liability to choke up with accumulated filth carried by the water into them; an objection, however, to which all other covered ditches are equally liable. I have now on my farm 275 rods of ditch which have cost me an average of 33 cents per rod, exclusive of board. The result of this operation has been to make available for grazing about 30 acres of swamp and marsh, before almost worthless, but now the most productive grass lands on the farm.

7. The trees indigenous to my uplands are white, red, yellow, and burr oak, hickory and wild cherry. In the low grounds are beech, maple, elm, whitewood, cotton wood, lime, butternut, white and black ash, swamp burr oak, iron wood and sycamore.

The shrubs are crab-apple, thorn-apple, blue beech, white hazel, spice bush, leather bark, elder, paw paw, wa-hoo, willow, rose bush, sassafras, frost and fox grapes.

The plants on the uplands are columbo, sundial, indigo root, milk weed, sunflower, smellage, skoke or garget root, and two kinds of blue-joint grass.

In the low grounds are skunk cabbage, birth root, wild turnip, lady slipper, winter green, cahush, several kinds of fern, nettles, rush, dock, marsh grass, sickel grass, three kinds of red top, broom corn grass, wild parsnep and spikenard.

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8. I have not been exact as to the quantity of manure per acre, drawn upon my land. I vary it according to circumstances, from ten to twenty loads. I make most of my manure under sheds where I feed my stock. My present practice is to tie up my cattle to mangers under sheds constructed for the purpose, where I feed them during the winter, bedding them well with straw to keep them dry and clean. Whenever the manure accumulates so as to become inconvenient, I get it out upon the fields where it will be needed for the spring crops. This saves the time usually spent in the spring in carting out manure, for other business. More than this—it saves all the manure, none is wasted or washed away before it reaches the field. To set the gases, and prevent waste by evaporation, I sprinkle plaster over the heaps as I unload them. Considerable manure will, of course, accumulate in the open yards, and in heaps as thrown from the stables. This I am sure to get out upon the fields as early in the spring as possible.

9. I am satisfied that manure applied in a well rotted state is more immediately beneficial to crops, than long or unrotted. But still there are advantages in applying it in this latter condition: we get rid of the filth and pestilential odors of manures remaining in the yards, or in compost heaps, undergoing the process of fermentation, together with the armies of insects bred in them, and sustained by their effluvia. Besides, manures once in the field, and well plowed in, are no longer liable to waste; all from that moment is safe. The objection that manures applied long, or unrotted, are injurious to crops raised immediately in connection with them, so far as my experience goes, is not valid. I have never known a crop injured by the application of unrotted manure, *when well plowed in*, and I am well satisfied that the most economical way of managing barn yard manure is, to apply it in its unrotted state. I prefer using it on clover sod, to be plowed under for my corn crop.

10. I have used no other fertilizers, not in common use, except plaster, and swamp muck.

I made an experiment, one year ago, with swamp muck by the side of well rotted manure taken from a shed where my sheep had been in the habit of herding during the spring and fore part of summer. The result was, an increase of the crop of wheat, of about 25 per cent. in the first, and fifty in the second kind named, over the yield of the crop

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immediately adjoining, in the same field, and treated in all other respects, in the same way.

I am fully of the opinion, however, that over and above all other sources for increasing the quality and general fertility of our soils, the farmer's chief reliance must ever continue to be on his clover sod, as by far the cheapest and most economical mode of manuring his lands.

TILLAGE OF CROPS.

11. I till about 50 acres of land yearly; mostly with corn and wheat; occupying, usually, a few acres with oats, potatoes, beans, turnips, fruit yard, garden, &c.

12. I sow 1¼ bushels per acre, of wheat. I sow between the 10th and 20th of September; varying the time according to circumstances. I plant corn between the 1st and 15th of May, in rows four feet apart each way, putting four kernels in each hill, which takes very near four quarts of seed to the acre.

My system for growing corn is, to plant on clover sod. I plow early in the spring, and from eight to nine inches deep, plowing in what manure I have for this crop. Immediately before planting, I roll the ground, then harrow, then mark both ways, and cover the seed lightly. As soon as the blade makes its appearance, I harrow both ways with a common two horse harrow, with the front tooth out. I next plow with a common corn plow, and turn the furrow from the row, both ways, letting the plow run as close to the hill as possible, without disturbing the corn; then plow both ways again, turning the furrows towards the rows. This completes the culture. My mode of harvesting is, to cut up the corn as soon as it is generally dented, or glazed, and put it into shocks of one hundred hills to the shock, and husk it out when dry enough to crib, preserving the stalks for fodder. The average yield of my crop for four years past, cultivated as above, is forty-four bushels to the acre.

My wheat crop, in general, follows my corn crop in rotation. I plow my corn stubble as soon as possible after my corn is cut from the hill and shocked. I have heretofore sowed broad cast, harrowed well both ways and finished up by rolling the ground the following spring, first seeding to clover and timothy. I harvest with a common hand cradle. The average of my wheat crop, managed in this way, is sixteen bushels to the acre.

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I sometimes sow on clover sod; in this case, I aim to plow sufficiently early to allow time for the sod to rot before seeding; and yet not so early as to make it necessary to plow the ground the second time to fit it for the seed. I prefer the two horse cultivator to the harrow, in putting in wheat on clover sod, first rolling the ground to prevent the sods from being moved by the process.

Having become satisfied, from a series of observations, that the common mode of putting in wheat with a harrow or the cultivator, leaves the seed too near the surface, where much of it perishes from exposures of various kinds, I purchased an interest in the "Clod Crusher and Seed Drill Combined," invented by John S. Gage of this place, and exhibited by him at the fair of the Michigan State Agricultural Society, at Detroit in the fall of 1853, with which I have done my seeding for my next year's crop. In doing this, I first plowed my ground well, and then passed over it with the instrument, using but one bushel of seed to the acre. This completed the culture. If, however, the furrows should be very uneven, it may be advisable to pass over them once with a harrow, before using the drill. But in general this will not be necessary.

In the use of this machine, I plant my seed from to two four inches deep, with the soil well compacted around it, for the immediate nourishment of the young plant. The seed all comes up, is entirely out of the reach of birds, looks healthy and vigorous, and is too well rooted and protected by its position to be injured by the dry searching winds, or the freezing and thawing of our winter and spring months. Thus the objections to the common mode of seeding, noticed above, are entirely obviated; and what is equally important, the crop, thus far, has escaped the ravages of the insect by which most of the fields of white wheat, in this vicinity, are nearly ruined. The reasons assigned for this last result, are, the insect cannot penetrate down the blade so deep into the earth as to effect a lodgment at the root of the plant, which, of course, remains uninjured, and immediately sends up new shoots, in place of those cut off or damaged by the insect above.

The amount of labor saved by the use of the "Clod Crusher and Seed Drill," compared with that required in the common mode of seeding, is, also, matter of very considerable account with me, in these times of high wages and scarcity of hands—one man with the machine and

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one team performing the labor usually requiring three men, two teams, and two harrows to accomplish.

What the final result may be in the amount of my crop at harvest, can, of course, as yet be only anticipated. It has, however, been demonstrated to my satisfaction by a series of experiments, conducted by the inventor of the machine during the three years last past, that one bushel of seed to the acre, sown by the "Clod Crusher and Seed Drill," will yield from three to five bushels more of wheat, than can be raised from one bushel and a half of seed per acre sown and put in by the common mode.

My oat crop is cultivated in the ordinary way upon potato ground or corn stubble. I sow 1½ bushels of seed to the acre, and get an average yield of about 25 bushels per acre.

In raising potatoes, I have had but indifferent success, which I attribute to want of skill in their cultivation. I became satisfied I had heretofore planted too much seed to the hill, and at too great a depth; thus crowding the hill with young tubers, and excluding air and light. This season I planted upon sod ground, plowed in the fall preceding. I first rolled, then harrowed, then marked lightly 3½ feet apart both ways, cut my seed into small pieces and put two pieces in each hill, then covered them with a corn plow by turning two furrows together so as to meet over the potato. I went through them, first with the cultivator, then with the corn plow, turning the furrows toward the hill, which completed the culture. I harvested 65 bushels of good potatoes from half an acre of ground, of the common large round pinkeye.

The only insect that has proved detrimental to my grain crops is the insect commonly known as the Hessian fly. The only remedies I have adopted with any tolerable success are, first, to sow such kinds of wheat as are not liable to its attacks. Second, sow on ground in a high state of culture, putting the seed in deep, and then roll heavily.

13. I make it an invariable rule to plow in my unrotted manure as deep as possible, with a common plow—from eight to nine inches at least, for any crop, and on any soil, and then roll the ground to keep it down. Well rotted manures, and composts, may with propriety be used as a top dressing, in the cultivation of certain crops, or plowed in at more moderate depths.

14. My potatoes were badly affected with the rot a few years ago,

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but for the last three years, they have not been damaged by it. I am not clear as to its cause, and I know no remedy.

GRASS LANDS.

15. I use clover and timothy, mixed, for my uplands, and red top and timothy for my low lands. I sow my clover in the chaff, consequently cannot tell, accurately, the exact quantity used. It is my aim to put on 12 lbs. clover, and six of timothy seed mixed, per acre. April is my time for sowing grass seed. Immediately after seeding, I pass over it with a harrow, or with the roller.

16. I mow from 10 to 15 acres of meadow, obtaining from 1 to 1½ tons of hay per acre, according to the season. My practice is to cut all kinds of grass when it is passing out of blossom; let it wilt thoroughly, roll it into bunches, let it stand a day or two, turn it over, let it stand another day, open it to give it air, then put it into the mow and throw on to it from 4 to 6 quarts of salt to the ton.

17. The only way I have as yet managed my low grounds, which are unsuitable for the plow, is to mow or pasture them, and improve them by ditching.

18. I have not, as yet, fully reclaimed any of my low grounds.

19. The only weeds that have proved particularly troublesome to me are sorrel and yellow dock. Sorrel can be conquered by deep plowing, thorough cultivation to corn, and frequent heavy seeding to clover. I know of no way to eradicate dock, except by taking it up by the roots.

DOMESTIC ANIMALS.

20. I keep one yoke of oxen, a span of breeding mares, four cows, a bull, and such young stock from these as I deem worth raising.

I have not yet got into any distinct breed of cattle or horses, but have commenced with a view to reach a cross of Devon and Durham cattle; the Devon to give spirit and color, (I like a deep rich red,) and the Durham, for form, size, and fattening qualities.

21. I have not, as yet, made any satisfactory experiments, showing the relative value of different breeds of cattle or other animals, for particular purposes; but am guided mostly in what I am doing, in these respects, by what I have read in books devoted to such subjects.

22. The cheapest and best method for wintering cattle and horses,

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so far as my experience goes, is to fasten them to mangers, in warm sheds, and feed and water them there in very cold or stormy weather, letting them run at large during the day, when the weather is pleasant or mild.

In this country, at present, all things considered, the cheapest food for cattle during the winter, is good hay, straw, and corn fodder, fed long for common feed—changing from one to the other occasionally—with the addition of cut hay or straw, mingled with corn meal ground with the cob, in cases where you wish to give an extra thrift.

23. I do not know the exact amount of butter and cheese made from my cows annually; it is mostly used in the family, and no particular account, in general, is kept of it. In referring to my "Farm account book," for the year 1851, I find the amount of butter and cheese manufactured on my farm for that year, from three cows, was 203 lbs. of butter and 216 lbs. of cheese, besides raising two calves and fattening one veal.

24. I usually have kept between 60 and 100 sheep. I commenced with a mixed breed of Saxony, Merino, and common stock. They were not healthy on my low grounds, and were exchanged for common stock, slightly mixed with Southdowns, and Leicestershire. These have done much better. They yield from three to seven lbs. to the fleece, and make a very good mutton sheep. The wool is worth from twenty-five to thirty cents per lb. I usually raise from 15 to 30 lambs per year. My wethers are worth for butchering, when fattened, from four to six dollars per head; ewes from two to four dollars. I have, this fall, purchased a pair of full blood Southdowns, with a view of breeding this kind of sheep, from an apprehension that they are of a hardy, strong constitution, capable of enduring the exposures of my low ground pastures, and that they are of a superior breed for mutton and tallow. I am exceedingly well pleased with their appearance.

25. The best method for wintering sheep which I have tried, is to keep them well sheltered in stormy weather—by all means, keep them from getting wet in winter. Feed them in ricks with good hay, and provide them with water every day. During the day, in pleasant weather, let them have range and coarse fodder—they like a variety—and the open air and exercise promotes healthfulness. I lose from 2 to 4 per cent. annually of my flock. I formerly lost from 10 to 15 per cent.

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26. I fatten from ten to twenty swine, yearly. They are a mixed breed of Byefield and Leicestershire, with some other breeds. My present practice is to fatten spring pigs. During the summer I give them a good range on clover pasture, and feed them slops. I commend regular feeding as soon as the new crop of corn begins to ripen. When cold weather sets in I put them in warm pens, feed them corn on the cob, with the addition of slops made of corn, ground, mixed with bran and shorts. I kill them at about nine months old. They weigh, when dressed, from 150 to 275 lbs. each. I have had them go as high as 297. Why there should be this great difference in the weight of pigs, all treated alike, and frequently of the same litter, I cannot satisfactorily determine. It may be the result of an improper crossing of breeds of diverse physiological habits and dispositions.

27. I have not made any very definite experiments showing the relative value of root crops, compared with Indian corn, or other grain, for feeding animals, either for fattening or for milk. The subject is one of great interest, deserving a very careful consideration, and he who succeeds in bringing it to a satisfactory solution, will be deserving the gratitude of his country. Judging from common observation, I have come to the conclusion, that, here, at the west, where labor is high and scarce, and good corn land plenty and low in price, and corn can be so easily and cheaply raised, the farmer, who, on the scale of economy, should substitute root crops of any kind, in place of Indian corn, for feeding animals for any purpose whatever, except for milk, and that without regard to its richness, would be guilty of a most egregious error. This conclusion is based on the presumption that, a given quantity of nutriment, contained in roots of any kind, must of necessity be combined with so large an amount of other matter, as to cost, at least, twice as much labor and time in raising, preserving and feeding, as that of Indian corn. Here at the west, labor, not land, is the costly article, and so long as corn can be raised and fed out with less labor than roots, in the production of the same amount of beef, pork, butter, and tallow, it would be folly to substitute roots in its place. At the east, and in older settled countries, the reverse of this may be the case.

It might be good economy, so far as the amount of grain consumed, is concerned, to grind corn into meal and cook it, for fattening swine. But when corn can be raised at ten to twelve cents per bushel, and will

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bring no more than twenty or thirty cents in market, it would be economy with ultimate loss to hire men at fifteen or twenty dollars a month, exclusive of board, to fatten swine in this way, for the purpose of saving corn. Treble the price of corn, quadruple the cost of producing it reduce the price of labor one half the sum named, then such economy would be wise. So of raising and feeding roots in place of corn. And so of many other things, where circumstances alter cases. To establish a system of true economy, therefore, many things must be taken into account, otherwise, what is saved at one end of the theory, may be lost at the other—we might spend a sixpence and save a pin.

For myself, I am in the practice of raising some roots, for the purpose of feeding under certain circumstances, where no other food answers so good a purpose, as for instance, to cows when coming in early, and to ewes, expected to drop their lambs before being turned to pasture, for the purpose of properly regulating the system for easy and healthful parturition, and producing a full flow of milk, so essential at such times.

FRUIT.

28. I have over five hundred apple trees, two hundred of which are in bearing. The others are from one to three years standing, consisting in part of sweet fruit, intended for feeding to stock, and in part, of long keeping winter fruit for market. I have ten varieties of summer fruit, eight of fall, and twenty of winter fruit, including my sweet fruit for feeding stock. The object I have had in view in the selection of my different varieties of fruit, is to obtain the earliest, latest, and best of summer and fall fruit; the earliest, best, and longest keeping winter fruit, so as to have a continued succession of good ripe fruit the year round. Of these varieties so far as I have had an opportunity of testing them, the harvest redstreak, Prince's early harvest, sweet June, sweet bough, summer queen and summer pearmain are the best for summer fruit. The Holland pippin, fall pippin, rainbow, and bellemont for autumn, and the red or black gilliflower, Rhode Island greening, swaar, white bell-flower, Esopus spitzenberg, Newtown pippin, ladies' sweeting and baldwin for winter fruit.

29. Besides these, I have twenty-five pear trees, twenty of cherry, thirty of peach, ten of plum, ten of quince, and twenty grape roots.

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My pears are of the following varieties: sweet August, Steven's Genesee, seckel, glout morceau and vergalieu.

30. The only insects that have as yet been particularly troublesome to my trees, are the Borers. I put ashes around the bodies of my peach trees in the spring to prevent the depredations of the peach borers, removing them again in the fall.

The apple tree borer cannot be so easily disposed of. The last two summers have been particularly favorable for his attacks, in consequence of the extreme heat and dry weather of those months. Out of 150 trees set in the spring of 1853, and preceding fall, not more than 20 escaped receiving some injury from them. And notwithstanding all my vigilance, 30 were entirely ruined. The last summer they have not been so destructive to my trees. Out of 100 trees set this last spring 30 or 40 only have been injured, and but 2 so much as to be past recovery.

I have endeavored to acquaint myself with their habits by close and careful observation, not being fully satisfied with what is said of them in the books I have consulted.

I have found the full grown insect to be a small brown bug, such as the books describe him to be. The female lays its eggs immediately under the thin outer coating of the bark, where the tree has received a sun scald, and the sap soured in sequence. If it deposits an egg elsewhere on the tree, it is because of some unsoundness in that part. The insect is prompted by its nature to seek such places on the tree to lay its eggs, because it is in the sour, impure sap of diseased trees that the larva or grub finds its support. I am of the opinion, that a sound, healthy tree is never troubled with borers. Trees recently set out are most liable to their attacks.

I have seen these insects in different stages of their growth; from the size of the point of a pin to that of a full grown grub of an inch in length. I have seen the bug himself, just as he issued from his hiding place under the bark of the tree, and I assure you I have found in my dealings with him, or rather in his dealings with me, that he is no *humbug*. As soon as the egg is hatched the insect commences working its way through the bark into the tree, leaving a small hole behind it, at the entrance of which may be seen for a time, a few small particles of the bark removed by his operations. These, however, are soon effaced, and no traces of its ingress can be discovered.

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It lives upon the soft woody matter beneath the bark of the tree, eating its way in different directions, sometimes upward, then downward, then zigzag, leaving woful traces of its appetite in its pathway. When several of them are at work in a tree at the same time, they soon girdle it entirely, thus causing its death in a short time. A close observer can readily discover the place on the tree affected by them by the appearance of the bark, which assumes at such places a reddish color, with, sometimes, small drops of moisture resting upon them. When the grub has attained its full size, it gradually assumes its bug form, gnaws its way out, and is soon ready to propagate a second generation of borers to carry on the work of destruction for the remainder of the season.

The first eggs are deposited the fore part of June—those for the second generation, the last of August or forepart of September. Most of the grubs from these last eggs remain in the tree during the winter, coming out in the bug form the following May or June.

When the cold season approaches, those grubs that have attained to sufficient size and strength for the operation, penetrate directly into the heart of the tree, following the pith upward or downward at its leisure, until it emerges a perfect insect the following summer. The others remaing under the bark, are either frozen and thawed to death during the winter or are destroyed by the all-devouring wood-pecker.

The only remedies, with which I am acquainted, are to promote by every means at hand, the health and vigor of the tree. Cultivate the ground around it; wash it with ashes and water, or with soap suds, or soft soap. If these fail, and the insects have effected a lodgement beneath the bark, then cut them out with a knife; bore in after them with a gimblet—follow them up with crooked wires, in short kill them or they will kill the tree. As an additional safeguard against the attack of the borer, after washing the tree as above, take a strip of cotton cloth two or three inches wide, wet it in the suds, and then wrap the body of the tree with it, beginning at the limbs and winding the cloth downward to the root, fastening it at both ends. In all cases it would be well to wrap the wounds on the trees, caused by cutting out the grub, with a bandage, to prevent the sun and wind from cracking the wood, and to promote the speedy healing over of the wounded part.

The Curculio has thus far destroyed my plum fruit almost entirely.

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I have tried various remedies, none of which have proved efficacious, unless it be the following:

I left one tree of the damson variety, standing in a stiff June grass sod plat, about six rods from any other plum trees. It bore the past summer a full crop of fair fruit. The other trees of this, and other varieties, all failed, casting their fruit before half grown. This fact is suggestive of thought.

The apple worm first made its appearance in the fruit here, one year ago. Many apples fell, prematurely, from the trees in consequence. I have noticed but few in the present crop. I know of no remedy.

31. My general mode of orchard culture is, to keep the ground in good tilth; mulch the trees with long manure in summer; wash them with ashes and water, or strong soap suds, and trim lightly when the tree is in full growth. My idea in this is, that the more vigorous the growth of the tree at the time, the more readily will the wound commence healing over.

FENCES, BUILDINGS, &C.

33. My farm buildings consist of a dwelling, one story and a half in height, nineteen by forty-six feet on the ground, with a lean-to on each side, ten feet in width, appropriated to bed-rooms, open porches, &c. This building is constructed on the plan, and in the manner recommended by Solon Robinson, for western cottage houses, with this exception: Solon recommends commencing at the back end, and finishing out by degrees, to the front, as time, opportunity, and means will permit. I commenced in the centre, with the dining room, and finished out each way, leaving each unfinished portion, as I progressed, in such condition, that the successve additions, could be connected to it with firmness and security. The whole building, as now completed, is placed upon stone mason work, with a cellar underneath enclosed with stone walls, and having a hard finish bottom, composed of coarse sand, gravel and lime, four inches in thickness. Light and air are admitted, into the cellar during the summer, through wire screens, which, on the approach of cold weather, are taken out, and their places supplied with double lighted glass windows. The dwelling contains, on the ground floor, a sitting-room, dining-room, kitchen, wood-room, four bed-rooms, a buttery, and larder. The dining-room and kitchen have each a water lime cistern, containing a never-failing supply of rain water. Adjoining the wood-

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room, is an out door wood-shed where a year's supply of wood is stored, and prepared for the wood-room as occasion may require.

My other buildings consist of an out house, ten by twelve feet, constructed for the three-fold purpose of storing ashes, smoking my meat, and drying fruit, and a common barn for hay and grain, thirty by forty-four feet, with a wagon shed and tool shop in connection, attached.

The barn is surrounded by a tight board fence, six feet in height, serving also for backs to sheds constructed in front, facing inward toward the barn, under which my cattle and colts are sheltered from storms, and tied to mangers and fed during the foddering season. A lean-to at one end of the barn, twenty by thirty feet, in connection with a shed opening to the front yard, fifteen by twenty feet, serves as a shelter for my sheep, where they are fed from ricks and troughs, when not ranging the fields.

34. My fences are mostly built of rails in the common way. I have none other except common board fence, in the construction of which I use swamp burr-oak, 7 feet in length, for posts. I regard this timber as next in value to cedar for posts. I set them in the ground 2 feet deep, with the top end downward, having learned from experience that they will last longer when set in this position. I use boards 14 feet in length, and raise the fence to at least 5 feet in height.

Common rail fence costs from 25 to 30 cents per rod. My post and board fence has cost me from 50 to 60 cents per rod. Fifteen rods of post and board fence constructed as above ten years ago, in front of my dwelling, has as yet undergone no repair, and is still in good condition. A common oak rail fence immediately across the road, constructed 11 years ago, has been once entirely reset, and twice repaired with new rails. What the final result in an economical point of view may be, will require several years yet to determine.

35. I weigh and measure the various products of my farm, so far as to enable myself to make out satisfactory estimates, and keep an exact registry of the same in a book denominated a Farm Journal; in which is also kept a daily journal of all my farming operations. From this book I also draw most of the items for my farm accounts, and make frequent reference to it, to refresh my recollection in regard to data necessary to be remembered.

36. I aim to keep a regular farm account book. This, however, with

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my limited knowledge of book keeping, as well as from the complex nature of some of the items to be entered, I find to be rather a difficult business. The expense or profits of many products can be arrived at only by estimation. It is also very difficult to decide, in many cases, whether certain articles should be entered as distinct items in whole, or in part only, as having been already included, in whole or in part, in some preceding entry.

The object I have in view in keeping a farm account book, is to ascertain the exact profits or losses arising from different crops of grass and grain, and of stock grown upon the farm; and, of course, the relative value of each as a part of the operation of farming; as also to find the sum total of the profit or loss arising from the farm itself, from all its different branches, year by year, from exact data.

My system for doing this is, first, to open a separate account with each particular crop; second, to open a general account with the farm itself.

In my accounts with particular crops I charge against the crops the interest on the estimated value of the land upon which the crop is grown, at 7 per cent., the price of the seed, the cost of all the labor, whether of men or animals, employed in its culture, at full prices, board included, and all the other expenses incidental to the crop, until disposed of; whether such labor was performed by members of my own family, or by persons employed for such service. I then enter to the credit of the crop its full market value, and strike a balance.

In my general account with the farm, I charge against it—the interest on the estimated value of the farm itself; the interest on the capital invested in teams, tools, and implements necessary for carrying it on; the interest on the estimated value of the stock upon the farm; and lastly, the amount of all taxes assessed upon the whole, and all balances, if any, against any particular crop. I then pass to the credit of the farm all balances in favor of particular crops; the value of all the wool, pork, beef, mutton, butter, cheese, poultry, eggs, &c., grown upon the premises during the year, and then strike a balance.

There are many other items, both of debt and credit, which might be entered upon the account; such, for instance, as the cost of time in feeding cattle and swine for beef and pork; the general care and oversight of young stock; the labor expended in various kinds of repairs and

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improvements upon the premises, &c., on the one hand; and the increase in numbers of some kinds of stock, and the enhanced value of others retained upon the farm; the enhanced value of the farm itself by reason of various repairs and improvements made upon it, &c., upon the other hand, in order to make the account full and complete in itself. But of these and various other items of a similar character, I find it very difficult, if not impossible, to keep an accurate account; the nature of the service, rendered as it frequently is at odd intervals of a few minutes, or half hours at a time in feeding swine, taking care of poultry, foddering cattle and sheep, in a great degree precludes it. I have therefore, in general omitted such items, letting those on one side balance against those on the other.

If, in closing my general account for the year, a balance is found against the farm, I consider it to be matter for no serious discouragement or alarm. Indeed, the best of farmers may frequently find this to be the case with them in balancing their books at the end of the year. This may be owing to a variety of causes; to a heavy outlay of capital in crops which prove to be a failure from causes beyond his control, or from a sudden depression in their market value, or from having made improvements upon the farm from which no returns have as yet been realized. At the worst, it only shows that we have labored for less wages than we had given ourselves credit for in our charges against the farm, or that we are in the receipt of less than seven per cent. upon the capital invested in farming operations.

If a farmer, one year with another, can make the actual income from his farm cover all its expenses, paying full prices for all the labor he bestows upon it, including board and interest, he is doing a much better business than many a man, who, in mercantile or professional pursuits makes a greater display. For if he should continue to do no better than this, the interest on his capital thus safely invested, together with the gradual, but sure rise in real estate, will in the course of years make him wealthy.

A system of farm accounts, like the above, deficient and imperfect as it is in many respects, and attended with considerable labor and care, is nevertheless a source both of pleasure and profit. I certainly can perceive no good reason why the advantages resulting to the farmer from a systematic account of his farming operations should not be as

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great in proportion to the amount of business done, as to the merchant or general business man.

My general account with the farm for the year 1851 is as follows:

		Dr.	Cr.
To interest on estimated value of farm rated at $14 per acre—$3,000 at 7 per cent.,		$210 00	
To interest on estimated value of stock of all kinds, to wit:			
65 sheep at $1,50 per head,	$97 50		
3 brood mares, used also for work,	150 00		
2 two years' old colts,	100 00		
3 milch cows,	36 00		
3 two years' old heifers & 2 yearlings,	34 00		
9 store hogs $15—domestic fowls $5,	20 00		
	$437 50	30 62	
On estimated value of tools & implements,	106 00	7 42	
To taxes of all kinds,		14 00	
" yearly expense of repairing tools,		10 00	
By 137 lbs. wool at 40 cts.,			$74 80
" cash for one cow sold,			10 00
" cash for 9 store pigs at $1 61,			14 50
" 1 veal $3, poultry and eggs $10,			13 00
" increased value of stock,			85 00
" 203 lbs. butter at 12½ cts.,			25 38
" 216 lbs. cheese at 8 cts.,			17 28
" 3,643 lbs. pork at $4 20,			152 00
" balance in favor of corn crop, (24 acres,)			52 09
" " " wheat crop, (28 acres,)			1 08
" " " oat crop, (8 acres,)			17 91
" " " potato crop, (½ acre,)			4 17
" " " hay crop, (23 acres,)			73 18
To women's help, for other than boarding,		32 00	
Balance in favor of the farm,		236 35	
		$540 39	$540 39

In the preceding account, interest is charged against the farm on its

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whole estimated value. Also on the estimated value of team and tools. But as interest has already been charged against the crops, on the estimated value of the lands upon which they are severally grown, which by reducing the balance in favor of the crops, operates as a charge against the farm. The interest on the whole value of the farm as charged in the account, should be made less by the sum of the several interests charged against the crops, or the farm stands charged with interest in part, twice on the same lands.

I have also concluded, after some reflection, that the farm should not be charged with interest on the value of the teams, tools, and implements used in carrying it on, nor for the repair of tools and implements, as these have already been included in the charge for labor against the several crops.

The item passed to the credit of the farm, for the increased value of stock, should be omitted unless a charge be made for labor in taking care of the same.

The item charged for women's help, includes only the estimated value of labor for dairy purposes, as the other has been included in the price of labor charged against the crops.

These errors, however, being of about equal value on either side, do not materially vary the accuracy of the final result.

The exceedingly small balance in favor of the wheat crop in the preceding account, resulted from two causes: a light crop, and a low price.

ACCOUNT GENERAL WITH THE FARM FOR 1853.

		Dr.	Cr.
To interest on 230 acres of land, at $14 per acre, $3220 at 7 per cent. made less by the interest charged against the several crops,		$160 20	
To interest on the estimated value of stock, to wit:			
60 sheep at $2,	$120		
2 brood mares, used also for work,	175		
2 colts $80, 3 cows $70,	150		
1 yoke oxen $90, 3 calves $46,	136		
4 breeding hogs,	40		
Domestic fowls,	6		
	$627	43 89	

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To taxes of all kinds, (including school tax for building,)	$38 00	
By balance in favor of corn crop, (19 acres yielding 570 bushels at 50 cts.) N. B. Crop light from drought,		$183 00
" balance in favor of oat crop, (7 acres yielding 75 bushels at 40 cts.) N. B. Crop very light.		4 65
" balance in favor of potatoe crop, (½ acre yielding 30 bushels at 50 cts.)		6 80
" balance in favor of hay crop, (8 acres clover and timothy: 12 tons at $6,)		46 30
" balance in favor of marsh meadow, (6 acres yielding 8 tons, part red top, at $5)		25 70
" balance in favor of wheat crop, (8 acres yielding 100 bushels at $1,)		58 80
" 1838 lbs. pork at $4 cwt.,		73 52
" 5 fat sheep at $4, $20; 4 pigs at $5, $20,		40 00
" 1 calf sold at $10, poultry and eggs $13,75		23 75
" butter and cheese,		43 00
" fruit of all kinds,		37 50
" 239 lbs. wool at 40 cts.,		95 60
To women's help for dairy,	40 00	
Balance in favor of farm,	356 53	
	$638 62	$638 62

NOTE.—In the preceding account, interest is charged against the crops for lands upon which they were grown at twenty dollars per acre, and at fourteen dollars per acre for the residue of the farm. In neither of the preceding accounts has any charge been made against the farm for my own care, and the general superintendence of the farming operations. When I have rendered personal labor it has been included in the account of labor in its proper place. The balance therefore in favor of the farm, must be considered as including pay for such service, and for risks in the premises.

In connection with my general account with the farm for the year 1854, I have thought proper to present the *accounts with the several*

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crops for that year, in order to exhibit the practical operation of my theory of farm accounts more fully, in the hope that it may prove beneficial, at least to some, who are engaged in similar attempts at book keeping, and that it may elicit further information, and lead to more correct details in a matter so little understood by farmers in general. It will be perceived that I have also made a variation in the general account with the farm for that year from the theory detailed in the preceding pages, by carrying the *balance only*, of profit or loss, on pork and on the stock in general, on to the account, instead of passing them at their full market value, to the credit of the farm. This alteration has been made to obviate the too frequent error in such accounts, of charging to the debt or credit of the farm twice over, the same material in different forms, such as mutton, pork, wool, butter, cheese, &c., which, in part at least, are but the products of hay and grain, already passed to the credit of the farm in the several accounts with these crops.

FARM ACCOUNT FOR 1854.

Corn crop, 28 acres:

	Dr.	Cr.
To interest on land at $25 per acre, at 7 per cent.,	$49 00	
" plowing the same at $2 per day,	45 00	
" four days' harrowing before planting,	8 00	
" eight days' marking,	16 00	
" eight days' planting,	8 00	
" three bushels seed,	2 50	
" three days' harrowing, first time through,	6 00	
" three days' harrowing, second time through,	6 00	
" six days' with single horse and plow,	9 00	
" six days' " " "	9 00	
" boys' work hoeing and pulling weeds,	5 00	
" eighteen days' cutting and shocking,	18 00	
" husking and cribbing at 6 cents per bushel,	50 70	
By 845 bushels corn, at forty cents,		$338 00
" corn fodder,		56 00
" ten loads of pumpkins,		10 00
Balance in favor of the crop,	163 80	
	$404 00	$404 00

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Wheat crop, 12 acres:

	Dr.	Cr.
To interest on the land at $25 per acre,	$21 00	
" labor putting in 6 acres on oat stubble, & seed,	18 00	
" 5 days' plowing 6 acres clover sod,	10 00	
" 1 day rolling,	2 00	
" 8 bushels seed at $1 per bushel,	8 00	
" 2 days' harrowing and sowing,	4 00	
" harvesting at $1 per acre,	12 00	
" stacking & threshing,	24 00	
By 175 bushels wheat at $1 40 per bushel,		$245 00
" straw and chaff of same,		10 00
Balance in favor of crop,	156 00	
	$255 00	$255 00

Turnip crop, one acre:

	Dr.	Cr.
To interest on one acre at $25,	$1 75	
" one day plowing the ground,	2 00	
" one day harrowing,	2 00	
" seed $1, harvesting $3,	4 00	
By 100 bushels turnips, at 2s,		$25 00
" tops for feed,		2 00
Balance in favor of the crop,	17 25	
	$27 00	$27 00

Potato crop, $\frac{1}{2}$ acre:

	Dr.	Cr.
To interest on the land at $25 per acre,	87	
" $1\frac{3}{4}$ day's plowing and preparing ground,	3 50	
" 4 bushels seed at 50 cts.,	2 00	
" 1 days' planting and 2 days' cultivating,	4 00	
" 3 days' harvesting and securing,	3 00	
By 61 bushels potatoes,		30 50
Balance in favor of crop,	17 13	
	$30 50	$30 50

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Oat crop, 5 acres:

	Dr.	Cr.
To interest on the land at $25 per acre,	$8 75	
" 3 day's plowing the ground,	6 00	
" 8 bushels seed at 40 cts. per bushel,	3 20	
" sowing and harrowing,	3 50	
" ½ day rolling,	1 00	
" cutting and shocking at $1 per acre,	5 00	
" stacking and threshing,	10 00	
By 120 bushels oats at 40 cts.,		$48 00
" straw and chaff,		5 00
Balance in favor of crop,	15 55	
	$53 00	$53 00

Bean crop, ½ acre:

	Dr.	Cr.
To interest on land at $25 per acre,	87	
" 1½ days' manuring and plowing,	3 00	
" seed 25 cts., planting 50 cts.,	75	
" harvesting 1 day $1, threshing and cleaning $1,	2 00	
By 10½ bushels beans at $1,		10 50
" straw and pods for sheep,		3 00
Balance in favor of crop,	6 88	
	$13 50	$13 50

Meadow ground, one field, clover and timothy, 6 acres:

	Dr.	Cr.
To interest on land at $25 per acre,	$10 50	
" plastering at the rate of ½ bushel per acre,	3 00	
By ½ of 7 tons of hay at $6 per ton,*		19 00
To 1 day self and boy with horse gathering seed,	2 50	
By clover seed in chaff at 20 cts. per basket,		6 00
" after feed at 25 cts. per acre,		1 50
Balance in favor of crop,	10 50	
	$26 50	$26 50

* Hay cut and put in barn for half the crop.

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One field, 12 acres, clover and timothy:

	Dr.	Cr.
To interest on the land at $25 per acre,	$21 00	
" plastering, at the rate of ½ bushel per acre,	6 00	
By ½ of 12 tons hay, at $6 per ton,		$36 00
To 1 day self and boy with horse, gathering seed,	2 50	
By clover seed in the chaff,		6 00
" after feed,		3 00
Balance in favor of the crop,	15 50	
	$45 00	$45 00

One field, 3 acres, clover and timothy:

	Dr.	Cr.
To interest on land at $25 per acre,	$14 00	
" plastering at the rate of ½ bushel per acre,	3 75	
" cutting the hay and securing,	17 25	
By 10 tons hay, at $6 per ton,		$60 00
" after feed at 2s per acre,		2 00
Balance in favor of the crop,	27 00	
	$62 00	$62 00

One field, 6 acres, marsh meadow:

	Dr.	Cr.
To interest on land at $20 per acre,	$8 40	
" four days' cutting at $1 per day,	4 00	
" curing and getting in,	6 00	
By six tons hay, red top and marsh grass, at $5,		$30 00
" after feed,		1 00
Balance in favor of the crop,	13 00	
	$31 50	$31 50

Pork crop:

	Dr.	Cr.
To first cost of three store hogs,	$15 00	
" interest on the same for 1½ years,	1 57	
" keeping during winter 4¼ months,	15 00	

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To keeping same with their increase 4½ months,	$15 00	
" fattening three hogs and nine pigs at an average of ten bushels corn to each, at 40 cts.,	48 00	
" cost of butchering and marketing,	5 00	
By 2629 lbs. pork at $4 per cwt.,		105 26
" 50 lbs. rough lard at 10 cts.,		5 00
" 1 pig sold for breeding,		4 00
" value of manure estimated,		3 00
Balance in favor of crop,	17 59*	
	$117 16	$117 16

ACCOUNT WITH STOCK OF ALL KINDS, EXCEPT SWINE, FOR 1854.

	Dr.	Cr.
To interest on estimated value of stock of all kinds except swine—$735—at 7 per cent.,	$51 10	
" keeping stock 7 months on hay and grain,	362 00	
[NOTE.—This charge includes the hay, straw, chaff, corn-fodder, and oats raised on the farm in 1853, at its estimated value, as passed to the credit of the farm for that year, together with 370 bushels of corn.]		
To first cost of pasturing for 5 months,	62 00	
" salt during the year,	2 50	
" estimated cost of taking care of stock 1 year,	75 00	
By estimated value of team work on farm,		$100 00
" estimated value of team work for other purposes,		20 00
" value of butter and cheese from 3 cows,		50 00
" estimated value of milk for family use,		20 00
" estimated value of slops from milk for swine,		10 00
" 3 calves at $5 per head and 1 young cow at $30, sold,		45 00
To 2 steer calves purchased,	15 00	
By 1 young horse sold at $150, and 1 sucking colt, reared, at $20,		170 00

*As no charge is made in the above account for cost of labor and care in maturing the crop, the above balance of $17 59 must be considered as covering that item of expense.

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By 197 lbs. wool at 30 cts. per lb.,		$57 10
" 15 lambs, raised, at $1, and 1 buck sold at $8,		23 00
" 5 fat sheep, slaughtered, at $4,		20 00
To 1 South Down buck and ewe purchased,	14 00	
By poultry and eggs,		20 00
" 100 loads manure at 25 cts. per load in yard,		25 00
" estimated value of manure dropped in the fields during summer,		6 50
Balance against the stock,		*15 00
	$581 60	$581 60

ACCOUNT GENERAL WITH THE FARM FOR A. D. 1854.

	Dr.	Cr.
To interest on estimated value of the farm, (230 acres) at $25 per acre, $5750; made less by the interest charged against the several crops,	$263 10	
" total amount of taxes for the year,	23 67	
" women's help for dairy purposes,	45 00	
" estimated interest on tools and implements and repair of the same,	31 00	
By balance in favor of wheat crop,		$156 00
" " " corn "		163 00
" " " potato "		17 13
" " " oat "		15 15
" " " bean "		6 88
" " " turnip "		17 25
" " " hay "		66 10
" " " pork "		17 50
To balance against the stock,	15 00	
By fruit of all kinds from orchard, harvested,		35 00
" rent of tenant house and lot,		25 00
" rent of farm tenements and garden,		150 00
" value of pasture at cost,		62 00
" 40 cords of firewood at 25 cts. per cord,		10 00
Balance in favor of the farm,	363 33	
	$741 10	$741 10

*It would be equally interesting and important that separate accounts be kept with each particular kind of stock, as neat cattle, horses, sheep, &c., in order to determine their relative value in farming operations. And it is to be hoped that questions of so much importance will not long remain unsolved by those who have facilities for arriving at definite results.

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Table, showing the comparative nett profit per acre; also the nett profits per cent. per acre, on the estimated value of the land; together with the cost per acre of the different crops of grain and hay grown upon the farm for the years 1851–3–4 *respectively:*

	1851.			1853.			1854.		
	Nett profits per acre.	Per cent per acre at $14.	Cost per acre.	Nett profits per acre	Per cent per aere at $20.	Cost per acre.	Nett profits per acre.	Per cent per acre at $25.	Cost per acre.
Wheat,	$0 03	$00 27	$6 89	$7 35	$0 36	$5 90	$13 00	$0 52	$8 25
Corn,	2 15	15	5 15	10 42	51	5 95	6 04	24	8 40
Potatoes,	16 18	1 19	36 32	13 60	68	16 40	34 26	1 13	7 49
Oats,	1 12	08	3 92	66	03	4 33	5 19	20	24 74
Beans,							13 76	55	13 24
Turnips,							17 25	69	9 75
Hay,	4 06	29	3 71	5 14	25	2 85	2 06	08	3 09

I am of the opinion that the preceding account with the farm for 1854 is as nearly correct, in theory, and in its practical results, so far as it goes, as the nature of such accounts will admit, where the value of many things can be arrived at only by estimation; and where an estimate a little too high, or too low, may affect materially the general result. Still the figures show a larger amount of clear profit than I can readily allow that farmers in general, and myself in particular, ever realize from our farming operations; consequently, I am rather led to suspect that there may be, and probably are, discrepancies somewhere yet to be corrected. Imperfect and deficient as it may be, I have derived so much practical information from an examination of the facts it presents, as to induce me to continue the practice of keeping farm accounts, and to labor for more extended detail, and greater exactness in regard to the various items in the different accounts composing the whole.

In drawing this inexcusably long article to a close, I must be allowed to express a hope that the time is not far distant when farmers in general will know enough of the theory and practice of farm book-keeping to determine accurately, and satisfactorily, the exact profits or losses upon farming in general, and also upon each particular branch of their farming operations.

I am very respectfully, &c.,

JUSTUS GAGE.

DOWAGIAC, Cass County, 1854.

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H. B. CHAPMAN'S STATEMENT.

To the Committee on Farms:

GENTLEMEN—I herewith give you answers to the questions propounded to the applicants for the prizes offered for farms:

1. My farm contains 200 acres, viz: 60 of wood, 5 acres waste and 135 acres improved.

2. Sand and loam, with hard clay sub-soil.

3. Clover and barn-yard manure.

4. Nine and ten inches. Sand that is deeply plowed will stand both wet and dry weather, better than when plowed shallow.

5. Not any.

6. I have under-drained common dry land and find it pays well by having a field tempered alike.

7. Beech, maple, white, blue and black ash, red elm, cherry, black walnut, butternut, white-wood, rock elm, &c.

8 & 9. I generally use my manure in a green state, except on my garden.

10. I have used neither.

11. I till from 60 to 70 acres, generally as follows, viz: 25 or 30 acres of wheat, 15 or 20 of corn, 5 to 10 acres of oats and potatoes.

12. I generally sow a bushel and a half of wheat per acre, four grains of corn in a hill, the hills four feet apart each way. I raise the dent corn.

13. I cover the manure about six inches deep.

14. I have found it to be a good plan to leave my potatoes in the ground until the last of October; by so doing, they are less liable to rot, than when dug early.

15. I sow timothy, red-top, and clover. Of clover, I sow eleven lbs. per acre, and timothy and red-top, five quarts per acre. I sow in March and April, and sometimes in September.

16. I mow about 30 acres, and average one and a half tons per acre. I like to cut my grass when the top begins to turn, and cock it the same day it is cut.

17 & 18. A great portion of my mowing land is suitable for the plow, the balance can be made so by ditching.

19. I have not succeeded in eradicating the weeds on my farm, but

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I master them by working among them while they are young and tender. Purslain and chickweed trouble me more than any other weeds.

20. I keep about 30 head of cattle, mostly native, some of them are a cross of Durham and native. I think good care makes good breeds.

21. I have made no experiments to show the relative valve of different breeds of animals.

22. The cheapest and best way to keep stock is to keep them in good warm stables and well bedded.

23. I do not know.

24. I keep about 100 sheep. They are a cross of French, Spanish and native. The average yield per fleece is 5lb. 1 oz. per head. This year I sold my wool for 35 cents per pound.

25. Give them good hay in pens, about 20 grains of corn each per day, and a good shelter for them to go to when they like.

26. I keep about a dozen swine. I feed them corn on the cob. They weigh about 300 lbs. each when dressed.

27. Not any.

28. I have 200 grafted apple trees, winter fruit.

29. One hundred and seventy fruit trees other than apple. They are not yet in bearing.

30. None.

31. I wash my trees with strong lye the first of June, and keep them as clean as a hill of corn.

32. Not any.

33 and 34. I herewith present a plan of my farm which will serve as an answer to these questions.

35. I do not keep a regular account any farther than to know whether I lose or make money.

36. I do not keep regular farm accounts.

37. I cannot give the regular receipts and expenditures of my farm.

The above answers I have endeavored to give as briefly and correctly as possible.

I have one field containing eight acres of summer fallow that gave 29 bushels of clean wheat this year; also one field of nine acres, new ground, that gave 27½ bushels per acre, clean wheat, by measure, and will overrun a little by weight.

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My corn will average one hundred bushels of ears per acre. I had the yellow dent corn on fifteen acres.

I had three acres of buckwheat that gave 5 bushels per acre.

My potatoes gave 200 bushels per acre on clover sod. I sold 113 bushels at fifty cents per bushel at the time of digging.

My method of farming is to get my ground in as good order as I can, by deep plowing and cultivating, and put my seed in in good season; and anything that requires hoeing I commence upon as soon as I can follow the rows. By so doing it is not a hard job to destroy the weeds. The most of my hoeing is done with the horse and cultivator, even among my beets.

With regard to stock, I think it is best not to keep more than I can keep well. One animal well kept is worth two poorly kept, whether for business or any other purpose.

I had one field of winter wheat which I have not mentioned; it gave 15 bushels per acre. It bid as fair the 1st of June as the best, but it soon began to die at the root; some while in blow and some when half filled. It was wheat sown after wheat. I have had it serve me so once before, although it was on a summer fallow. I have come to the conclusion that I ought not to sow wheat upon the same ground oftener than once in three years.

I had this year about three acres of Rio Grande spring wheat which turned 50 bushels, or a little over 16 bushels per acre.

I have cleared up two farms and my neighbors say my farm is clean; now I will give you my way of doing it.

I seed down my fence corners with Timothy and that helps to keep them clean; then I make a practice of going over every lot on the farm two or three times each year, and if any dock, thistles, mullen, briers or other obnoxious plants are found, they are rooted out with a small grub hook made for the purpose.

I make a practice of having enough firewood cut in the winter and spring to last a little over a year. By so doing we have quick fires and a little time to work in the garden before breakfast. By getting his firewood chopped a year ahead a man may save enough in one season to pay for his next year's wood. Try and see if this is not so.

The diagram shows you how my farm is fenced and ditched. The ditches are laid with cobble stone. I lay two on the bottom, one on

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each side, and a large one on top, and then fill the chinks with smaller ones.

The fence is laid with seven feet worm, and one foot lap at each end, which makes it so stout that I am not troubled with the wind or unruly cattle. The rails are eleven feet long, and the strings of fence will average eight and three-quarter rails high; none of it being less than eight rails, and the most is nine feet high. On the road I have a little over a mile of fence that is locked with rails on the outside. The way I build my fence it takes twenty rails to each rod. Some say there is no necessity for building such fence, but if I live ten years longer I think I will be able to show them the philosophy of building big fences when we have plenty of timber.

I have made forty-two strings of straight fence which will average forty rods each, or 875 rails, or a total of 36,750 rails.

Yours with respect,

HIRAM B. CHAPMAN.

Reading, Hillsdale County, 1854.

J. S. TIBBITT'S STATEMENT.

Messrs. S. M. Bartlett, A. Y. Moore and C. W. Green, Committee on Farms:

Gentlemen—I herewith transmit to you answers to the various questions proposed to competitors for the prize on farms.

SOILS.

1. My farm consists of 80 acres. Sixty-five of which are under improvement, leaving fifteen acres of timber. I have no waste land.

2. Clay, sand and gravel, mixed in about equal proportions, constitute the nature of my soil; all resting upon a clay sub-soil, from eight to 12 inches below the surface, which occasionally crops out, forming small clay patches. There is considerable lime stone in the soil in the form of small, loose boulders.

3. Under-draining is undoubtedly, the first requisite to the proper improvement of clay soils, as, indeed, it is to all soils retentive of moisture. Next to this, I consider sub-soiling in the fall, throwing the land

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into ridges, the best method of improving soils of this kind. Soils thus treated are rendered pulverulent by the action of frosts. They also imbibe large portions of ammonia from the snows and rains of winter. I would also recommend applying long, coarse manure in the fall, buried to the depth of ten or twelve inches. Sandy soils will not receive as much benefit from deep fall plowing as clay. But deep plowing, plaster and clover are essential to the improvement of both sandy and gravelly soils. I consider *rest*, nature's proper mode of improving and invigorating all soils, which being over-fed and over-cropped, like an over-worked and highly fed horse, needs to be turned out to *pasture*, in order to be re-invigorated.

4. From eight to fourteen inches are the depths to which I have tilled my land for the last four years. Deep plowing has had the effect of adding a new farm to my old one, without increasing the number of acres. By raising the sub-soil to the surface, submitting it to the vivifying influences of air, light, heat, rains, dews, &c., and thoroughly incorporating it with the surface soil, I have almost doubled the quantity per acre, without any other appliances.

5. I have a field of 20 acres which had been cropped with wheat until the field was less than fifteen bushels per acre. I procured one of French's double sub-soil plows, hitched on three heavy yoke of oxen and turned it up to the depth of fourteen inches, sowed it to wheat and the yield was twenty-three bushels to the acre, notwithstanding the season was very unpropitious, wheat shrinking badly all over the State. There was also a tremenduous growth of straw. The next crop of wheat, in two years from that time, yielded thirty-three and a third bushels to the acre.

6. I have used the double sub-soil plow alluded to above for the last four years. The results have been most satisfactory; greatly improving the soil, and increasing the crops without any additional manuring. In fact, I deem *once* subsoiling more than equal to three dressings of manure, because more lasting. I have only drained about three acres of low wet land with open ditches. The result has been to convert land, which before grew nothing but flag and coarse grass, into my best grass lands.

Want of means has prevented me from thoroughly underdraining my whole farm. Notwithstanding it is naturally dry and rolling, still I am

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fully persuaded that to have every acre of it properly underdrained, together with deep plowing, would entirely prevent the disastrous effects of drouths, besides adding greatly to the fertility of the soil by rendering it susceptible of imbibing and retaining the fertilizing gases with which the air abounds.

7. Of trees we have the oak, black and white, beech, maple, basswood, black walnut, butternut, bitternut, hickory, ash, white, black, and blue, whitewood, cherry, poplar, sassafras, and an occasional buttonwood. Of shrubs we have the willow, sumac, alder, prickly ash, spice bush, blackberry, raspberry, gooseberry, and wild currant bushes. Of plants their name is legion, a few of which I will enumerate, giving their common names for want of a knowledge of their scientific ones. We have the sarsaparilla, ginseng, goldenseal, sweet cicily, crowsfoot, groundnut, leek, wild turnip, plantain vervain, mullen, skunk cabbage, cohosh, blue and white, mandrake, adder tongue, spikenard, ox balm, night shade, lily, queen of the meadow, boneset, snake root, lady slipper, touch me not, mallows, dock, round and narrow, common thistle, round top, mare tail, fire weed, &c., &c.

MANURES.

8. If the manure is coarse, uncomposted, I apply from 30 to 50 loads; if rotted or composted, from 20 to 40 loads. I believe in manuring bountifully where I do manure. Most of my manure is kept under cover, and ashes and plaster occasionally sprinkled over to prevent the escape of ammonia and other volatile gases. Have no cellars for receiving manures.

9. I use manure in its long, crude state, and also composted. Where it is applied in the fall, or in the spring for fall crops, I use it in its coarse unfermented state; but for summer crops, where its immediate action is required, I prefer to have it composted and fine. Liquid manure would be still better.

10. Have used lime, plaster, domestic guano, salt, and ashes—leached and unleached—composted with long manure, and also separately, sown broadcast. The result has been satisfactory, and it pays me well to use all these special manures.

TILLAGE CROPS.

11. In 1853, I tilled forty acres of land, viz: five acres of wheat, eight of oats, three of corn, four of barley, four of potatoes, acre and a

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half of millet, half acre of beans, half acre of peas, one acre of turnips and twelve acres and a half of meadow.

12. I use a bountiful supply of seed: two bushels of wheat (a less quantity will do if threshed with a flail) to the acre, three of oats, three of barley, three of peas, ten of potatoes, half bushel of millet, six quarts of corn, eight of beans, eight of timothy seed, twelve pounds of clover seed and four oz. turnip seed.

Within a few years I have practiced sowing wheat after spring crops, in which I have been very successful. I sow after peas or barley, plowing the ground in the fall for these crops. Immediately after these crops are removed the ground is plowed, and if no manure has been applied to the previous crop, well composted manure is spread over the most barren portions of the field. Before seeding the ground is thoroughly cultivated. Good clean seed, of the Soules or blue stem varieties, is then sown, from the tenth to the fifteenth of September. The ground is again cultivated and rolled down level. Average yield for the last three years a trifle over thirty bushels to the acre. When it is intended to summer fallow, clover sod or corn stubble is selected. I break up in June or July. Cultivate the ground often, especially when it is very dry, so as to give it all the benefit of dews and rains. I plow but once. My wheat is cut after the straw turns yellow, before the kernel becomes hard and the head turns down.

For oats and barley a rich loamy soil is selected, the ground plowed in the fall, well cultivated in the spring, and the seed sown as early in April as the weather will permit. I seldom plow in the spring unless the ground is very compact. The cultivator and roller are used in putting in all these crops. The same rule for harvesting is observed as in wheat. Average yield of oats, 35 bushels to the acre. Of barley, 28 bushels.

A clayey soil is selected for peas, which should also be plowed in the fall and again in the spring. The peas are then sown on the furrows as early as the 10th or 15th of April. They are then cultivated and rolled in. I mow my peas as soon as the vines begin to turn, the peas being much better than when suffered to stand until dead ripe. The straw, if cut early and well cured, is fully equal to clover hay for sheep. Average yield 25 bushels to the acre.

Millet requires a rich mellow soil. About half a bushel of seed is

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sown to the acre. The 20th of May is early enough to sow millet. It should be bushed or harrowed in with a light harrow, and the ground rolled down smooth. As I sow millet principally for the fodder, it is cut before the seed is all ripe. Average yield 6 tons of most excellent provender for sheep.

I prepare ground for corn by deep plowing in the fall or as early in the spring as it will answer to stir the ground. Long unfermented manure is buried to the depth of 10 or 12 inches, the ground made mellow by cultivating, and marked out 3½ feet east and west by 4 feet north and south for the dent, and 3 feet by 3½ for the smaller varieties. From 4 to 7 kernels are dropped in each hill and covered to the depth of 2 inches. As soon as the rows are visible I commence with the cultivator and continue its use until the corn is too large to be longer worked. "Hilling," I deprecate entirely and only use the hoe to cut and cover up such weeds as have escaped the cultivator. Not more than 4 stalks of the dent, nor over 5 or six of the smaller kinds are left in the hill. I cut up my corn by the root as soon as the ear becomes glazed. Average yield 40 bushels to the acre.

A dry sandy soil is selected for potatoes. A clover sod if I have it. All the hog manure is applied to the potatoe patch and well incorporated with the soil, or what is still better, applied directly to the hill. The ground is furrowed out 3 feet one way and marked the same distance the other. I select my largest potatoes for seed, cut them in two, and put a half in each hill, covering 6 inches deep. The after culture is the same as with corn, except a slight hill is given to those potatoes that grow in a heap. I dig my potatoes before the fall rains commence, leaving those intended for seed in the ground, and burying those intended for spring and summer's use. Average yield 150 bushels to the acre.

A sandy loam is selected for the root crop, plowed deep and made mellow and fine. I sow my carrots in drills, eighteen inches apart. For mangel wurtzel and Swedish turnips, I make ridges two feet apart, and with a hoe make hills at the distance of eighteen inches on the ridges, in which two seeds are deposited. This saves much labor in thinning out, besides facilitating the hoeing operation. The yield has been at the rate of about eight hundred bushels to the acre.

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The Hessian fly and weevil have injured my wheat crops. Have not been able to find an effectual remedy against their ravages.

The cut and wire worms, have, of late years, been very destructive to the corn crop. From three to five bushels of salt to the acre, sown broadcast, I consider a certain remedy.

13. On most soils, and for most crops, I would have manure covered at least eight inches. If the land has recently been sub-soiled a top dressing of finely rotted manure would prove highly beneficial.

14. My potatoes have heretofore been effected with the "rot." I have not fully satisfied myself of the cause, nor am I acquainted with any sure remedy, unless the Roberts' remedy shall prove such.

GRASS LANDS.

15. Clover, timothy, and red-top, are the grasses grown on my farm. Twelve pounds of clover seed, and six to eight quarts of timothy and red-top seed, I consider suitable quantities to the acre. I sow clover early in the spring on my wheat, and as soon as it is up apply half a bushel of plaster to the acre, which insures the clover, besides greatly benefitting the wheat.

I have succeeded best with timothy, by sowing it after harvest, dragging it in the stubble ground.

White clover, timothy and red-top are the best grasses for dairy purposes.

16. I now mow twenty acres—ten of clover and ten of timothy—average quantity one and a half tons to the acre. I cut clover when it is in full bloom, let it wilt, and then cock it up, opening it once or twice before housing it. Timothy and red top I do not cut till the seed is out of the milk. If the weather is very fine it may be secured the same day of cutting; otherwise I cock it up and let it cure in the cock.

17. All of my meadow land is arable.

18. Have only reclaimed about an acre of this kind of land, which was done by opening a ditch through the center, and another across one end to cut off the supply of water, then sowed red top seed and dragged it in. The result is a heavy burthen of tame grass, where, formerly, nothing but flags and rushes grew.

19. The most troublesome weeds are the common thistle, milkweed, and narrow dock. I have succeeded in keeping these under pretty good

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subjection by mowing them twice in the season before they went to seed.

DOMESTIC ANIMALS.

20. I keep a yoke of oxen, ten cows, usually raise two head of young cattle, and have a span of brood mares. My cattle and horses are all grades, from half to three-quarter blood. My cattle are mostly Durham grades. My mares are of the Bay Roman stock.

21. Have not made any experiments to test the relative merits of different breeds of cattle for practical purposes, but believe the grade cows preferable to the full bloods for dairy purposes.

22. Equal quantities of hay, straw, and cornstalks cut up fine, and fed alternately, or all mixed together, warm dry shelter, and a supply of fresh water *in the yard*, is the cheapest way I can winter stock.

23. Three thousand pounds of cheese, and eight hundred pounds of butter is about the average quantity made from ten cows in one year.

The milk for cheese is made into curd immediately after milking, by adding sufficient rennet to "bring" it in about fifteen minutes. After it has "come," it is broken up and allowed to stand until the whey rises, when it is dipped into the strainer and the whey suffered to run off. It is then cut into small chunks an inch or so square and scalding whey poured on. When it is sufficiently scalded, which may be known by its being "tough and squeaky," it is put away in a cool place, till morning. The morning's milk is treated in the same manner. The two curds are then chopped up fine and salted at the rate of a tea-cup full of salt to eighteen pounds of curd. It is then put into the press and pressed for twenty-four hours. The cheese is then bandaged, greased and turned every day till thoroughly cured.

The milk for butter is strained into shallow tin pans and put away in a cool place, where it remains till all the cream rises. The cream is then skimmed off into a stone jar, and suffered to stand until it sours. It is then churned in a thermometer churn. The butter is taken out into a wooden bowl, and *every particle of butter-milk* worked out. It is then salted to suit the tastes of consumers.

24. I now have a hundred and twenty sheep, three-quarter blood Spanish. The ewes—of which there are seventy-five—shear three lbs. and a half each. The weathers, four pounds. I usually raise more

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lambs than I have ewes. I have sold my weathers at one year old, after shearing, for eighteen and twenty shilling per head. Lambs from ten to twelve shillings per head, at three months old.

25. Plenty of good timothy hay, a dry, open shed, and fresh water in the yard, is the method with which I have been most successful in wintering my sheep. Sulphur mixed with salt, in the proportion of a quarter of a pound to a hundred sheep, given once a week, will keep off the ticks. I have never yet lost a sheep by disease.

26. Do not generally winter over but two, a sow and a boar. I am now wintering five stock hogs. Two Essex, two Suffolks, and a grade Leicester sow. Usually I fatten ten or twelve. Feed them on slops through the summer, fat them on ground peas, barley, and corn soured with whey or sour milk. Weight at ten months old, from two hundred and fifty to three hundred pounds. At eighteen months old have had them weigh over five hundred pounds.

27. Have not made any experiments to test the relative merits of roots, as compared with corn, but consider them very beneficial for stock of all kinds.

FRUIT.

28. Have a hundred apple trees, nearly all grafted with choice varieties, such as Spitzenbergs, greenings, russets, bellflowers, Newtown pippins, Holland pippins, twenty ounce pippins, monstrous pippins, crooked limbed pippins, French pippins, golden pippins, seek-no-furthers, black gilliflowers, scallop gilliflowers, Steel's red winter, Baldwin, snow apple, stone apple, Romanites, yellow harvests, streaked harvests, rambo, sweet bough, Tolman sweetings, spur sweetings, &c.

29. Have thirty-six peach trees, twenty-five cherry trees, eight plum trees, ten pear trees, six quince bushes and one nectarine. Most of these trees are young and have not come into bearing sufficiently to test their merits.

30. The borer, wood-louse, and apple-worm are the principal enemies of the fruit trees and fruit. I am experimenting with salt, and a wash of strong ley and soda, with a view of destroying them. My apples are almost entirely free from the worm this year.

31. I cultivate my orchard; stir the ground often, keep out all the weeds and grass, raise little or no crops in it, manure the ground boun-

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tifully, mulch trees with chips, long coarse manure, and leached ashes, keep them well trimmed, and wash every year with strong ley and a soda wash.

32. I am of the opinion that there is more net profit in a small farm properly managed, in proportion to the capital invested, than in a large one; because it can mostly be managed by one's self; and in case of a failure of crops you have not a raft of hands to pay off. Besides this, there is more or less wasted where your work is entrusted to other hands; and I find there is as much in saving as in raising. I therefore fully endorse the adage, "A little farm well tilled, a little house well filled, and a little wife well *willed*, are three most desirable objects."

I find it is safer and more profitable to raise a variety of products on the farm than to turn one's attention to any *one* particular branch of husbandry.

I find it more profitable to have my stock mostly of the feminine gender; and I further find it more profitable to keep the best of stock and keep them in the best of order. To this end I find my stock do better to keep them up in close yards during the foddering season and not turn them out until grass is sufficiently large to furnish them with an abundance of food. I find that sheep husbandry is the most profitable, and the dairy next. I find it more profitable to make my pork from spring pigs and not keep over any but stock hogs. I find it more profitable to keep my pigs up, feeding them from the time they begin to eat till they are slaughtered, than to let them rove about my fields, rooting up my pastures, and troubling my neighbors. I find it pays well to purchase lime and salt and apply them to my wheat fields. The lime assists to digest the crude vegetable mold and prepare it for assimilation, making the wheat plumper and heavier. The salt kills worms, insects and the seeds of weeds, and stiffens the straw where there is a tendency to lodge. I find apples very profitable for stock of all kinds. My horses will keep fat on sweet apples, without any grain, and work hard every day. My hogs never fatted faster than while feeding them with boiled apples—sweet and sour—mixed with meal, at the rate of half a bushel of the latter to five of the former. Finally, I find it to my interest to undertake no more than what I can do well and in season, and to do *thoroughly* whatever I undertake.

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33. I have a frame dwelling house. Upright, 23 feet by 30. Addition, 20 feet by 50. In the main building there are two rooms 15 feet square, two bed rooms 8 feet by 10, two clothes presses 5 feet by 8. In the addition we have a kitchen or dining room 12 feet by 20, stoop and recess 6 feet by 20, cook room and pantry 8 feet by 20, wood shed 16 feet by 20, cheese room and press room 8 feet by 20. Horse barn 20 feet by 30. Grain barn 32 feet by 50, with cellar underneath for storing roots. Hay shed 18 feet by 80, with stone basement for stock. Sheep shed 12 feet by 80. Brick smoke house, &c.

34. Construct rail fences, except around my house and garden. Build my fences 7 and 8 rails high, of good sized rails 10 feet in length and square at both ends. I put a good sized stone or oak block under each corner. This makes a fence 6 feet to 6½ high. The cost of constructing such a fence I estimate at 50 cents a rod. I have about 2½ miles of such fence on my farm.

35. I weigh and measure all the products of the farm and make a daily record thereof.

36. I keep regular farm accounts. An accurate account of all the receipts and disbursements of the farm is kept, and at the end of the year a balance is struck. I deem this as essential for the farmer as for the merchant or mechanic. Were this generally practised, its tendency would be to reduce farming more to a system, enable the farmer to determine what particular branch of farming was most profitable, and add greatly to the stock of systematic farming and agricultural knowledge, which is so much needed.

37. I shall not be able to give you the receipts and expenditures for 1854 as the year is not yet closed, and I have not yet disposed of all my products. I will therefore give those of 1853, premising, that they were less than those of previous years, and considerable less than this year. I had no fruit that year, and the drouth shortened up most of my crops. This year I had over 500 bushels of apples.

Jan. 1. 1853. Capital invested in farming was $4,887 50.

80 acres of land, worth $50 per acre,	$4,000 00
10 cows, worth $25 each,	250 00
1 yoke oxen, worth $110,	110 00
1 span mares, worth $200,	200 00

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61 sheep, worth $2 50 each,		$152 50
2 hogs, worth $15,		15 00
40 hens, worth 25 cts. each,		10 00
Farming tools of all kinds, worth say,		150 00
		$4,887 50
Interest on this sum at 7 per cent.	$342 12	
Add to this sum, for wear and repair of tools,	25 00	
Added to principal,		367 12
Makes,		$5,254 62

The advance in the price of land and stock will make this capital somewhat larger at the beginning of 1854.

Jan. 1, 1854. Capital invested in farming, $5,932 50.

80 acres of land, worth $60 per acre,	$4,800 00
10 cows, worth $25 each,	250 00
1 yoke of oxen, worth $122 50,	122 50
1 span of mares, worth $250,	250 00
102 sheep, worth $2 50 each,	255 00
2 hogs, worth $15,	15 00
60 hens, worth 25 cts. each,	15 00
Farming tools,	125 00
	$5,932 50
	$5,254 62
Increase on capital of 1853,	$677 87

A part of this will be reckoned in again in making up the receipts of the farm for 1853.

FARM ACCOUNT, 1853.

DR.

Peas—cost of raising half acre of peas,	$4 50
Beans—cost of raising half acre of beans,	4 50
Oats—cost of raising eight acres of oats,	32 50
Millet—cost of raising one acre and a half of millet,	9 25
Barley—cost of raising four acres of barley,	27 75
Corn—cost of raising three acres of corn,	26 25

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Wheat—cost of raising five acres of wheat,	$40 50
Potatoes—cost of raising four acres of potatoes,	57 00
Turnips—cost of raising one acre of turnips,	10 00
Hay—cost of cutting and securing 12½ acres of hay,	37 50
Pasture—twenty-five acres of pasture, worth $4 per acre.	
Timber—fifteen acres of timber, cut wood, rails, logs, hewing timber, &c.	
Grass seed—2 bushels clover seed, 3 bushels herd's grass,	21 17
To 1 tun of plaster,	7 00
" 66 bushels of ashes,	3 30
" 5 bushels of lime,	1 25
" use of buck sheep,	5 00
" taxes,	9 26
" woman's help during year,	49 64
" 1 yoke oxen bought,	110 00
" interest on farm, stock, &c.,	342 13
" wear and repair of tools,	25 00
" keeping cows one year, 10 heads, $15,	150 00
" keeping sheep, average 80, at $1 each,	80 00
" feed for hogs,	100 00
" 1 cow bought,	15 00
" men's help, besides accounted for,	45 00
" raising 4 calves on swill, $2 each,	8 00
" own labor on farm, 200 days at $1 per day,	200 00
" wife's labor at $3 per week,	156 00
	$1,577 50
To horse barn built,	200 00
	$1,777 50

CR.

Peas—raised 6 bushels, worth $2 per bushel,	$12 00
Beans—raised 10 bushels, worth $1 per bushel,	10 00
Oats—raised 240 bushels, worth 37½ cents per bushel,	90 00
Five tons of straw, worth $4 per ton,	20 00
Millet—raised 3 tons, worth $8 per ton,	24 00

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Barley—raised 120 bushels, worth 62½ cents per bushel,	$75 00
Two tons of straw, worth $5 per ton,	10 00
Corn—raised 87½ bushels, worth 5s. per pushel,	54 55
Stalks, worth	12 00
Wheat—raised 125 bushels, worth $1 50 per bushel,	187 50
Five tons of straw, worth $2 per ton,	10 00
Potatoes—raised 310 bushels, worth 37½ cents per bushel,	116 25
Turnips—raised 100 bushels, worth 2s. per bushel,	25 00
Hay—cut 15 tons, worth $10 per ton,	150 00
Pasture, worth $4 per acre,	100 00
Timber—Cut timber to the amount of	80 00
By one beef sold,	33 75
" 150 lbs. veal sold,	6 00
" 5 calf skins,	3 20
" eggs sold,	22 00
" 2½ lbs. turnip seed,	5 00
" 1 yoke of oxen sold,	122 50
" 4 calves raised, worth $5 each,	20 00
" 25 sheep sold,	50 00
" 3,675 lbs. pork fatted,	202 12
" butter and cheese made during the year,	386 26
" 237 lbs. wool sold, at 4s. per lb.,	119 50
" 66 lambs, worth at 8 months old, $2 each,	132 00
" 20 chickens raised, worth 2s. each,	5 00
" services as Supervisor,	68 00
	$2,151 63
Actual increase in value of farm,*	800 00
	$2,951 63
	$1,777 50
" Income from the farm,	$1,174 13

J. S. TIBBITTS.

PLYMOUTH, Wayne County, 1854.

*This increase in value was made by improvements and repairs.

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COMMUNICATIONS.

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ESSAY

ON THE CULTIVATION AND MANAGEMENT OF CLOVER.

BY EDWARD MASON, OF GREENFIELD, WAYNE COUNTY, MICHIGAN.

(For which the Society's premium was awarded.)

No forage, no cattle—without cattle
No manure—without manure, no crop.
[*Flemish Proverb.*

In writing an essay on the cultivation and management of clover, I will first give a short botanical description of the most important kinds which belong to the genus Trifolium; a name composed of two Latin words—*tres* three, and *folium* a leaf, under which head are arranged a considerable number of plants; of these, the most important to the agriculturist, are—

1. Trifolium Pratense, common red or purple clover.
2. Trifolium Repens, common white or creeping clover.
3. Trifolium Medium, or Pratense Perenne, low grass.
4. Trifolium Officenale, common trefoil or mellilot.

A short description of these kinds may be interesting to the farmer.

Dr. Lindley thus scientifically describes them:

1. *Trifolium Pretense.* (Purple Clover.) Spikes dense; stems ascending; petals unequal; calyx hairy; four of its teeth equal; stipules ovate; bristles pointed; flowers purple. Biennial.

2. *Trifolium Repens.* (Creeping Clover, common White Clover.) Heads globase; flowers somewhat stalked; legume within the calyx four seeded; stems creeping; solid; flowers white.

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3. *Trifolium Pretense*, Perenne or Medium. (Low grass or Perennial Clover.) Spikes lax; stems zig-zag and branching; petals nearly equal; stipules tapering, converging; two upper calyx teeth shortest; flowers purple. Perennial.

4. *Mellilotus Officinalis.* (Common Trefoil or Mellilot.) Racemes unilateral; legume ovate, acute, transversely wrinkled, hairy and compressed at the upper edge, with two seeds; stem erect; flowers yellow.

As Red clover (Trifolium Pratense) is so extensively cultivated in America, its proper cultivation and management is of the greatest importance to the farmer, and as the principal ingredients of the clover plant are potash, lime, salt and gypsum, he can easily procure suitable manure.

Bones dissolved in sulphuric acid are an excellent manure, and become doubly valuable when mixed with night-soil, as the contents of privies are scientifically designated. Wood ashes is an excellent manure by itself, but when mixed with the substances before mentioned its efficacy is of course wonderfully increased. In America immense quantities of bones are allowed to go to waste; if these were collected, and ground or crushed, or even kept in barrels among wood ashes, what an immense amount of manure would be available for the clover crop. Wood ashes will dissolve bones, without any other appliance.

The time for sowing clover varies according to the condition of the farm, and the state of the crop with which it is put down. Some farmers sow it without any other crop. It is sown with success on wheat in the fall and also with the same kind of crop in the spring, and with the usual spring crops. It has been cultivated with flax and has succeeded well. The late frosts in spring often destroy the young plants, therefore it should not be sown until the frost has disappeared. If the land be intended for permanent meadow or pasture, some seeds of *perennial* grasses or clover should be sown.

A small quantity of white clover is found a great acquisition to the pasture field. As red clover derives much sustenance from the oxygen of the atmosphere, it does not impoverish or exhaust the soil so much as many other crops, and when a clover crop is plowed in as manure it sometimes has a beneficial effect on the soil; but this system has been *carried too far*, and much injury has resulted from an abuse of the practice.

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Clover seed requires very little covering, say half an inch of soil, but still it is highly necessary that this small amount shall be *carefully and speedily supplied.* A few days' exposure to the sun will effectually destroy the seed. A clover lea is a great nursery for the wire-worm, the grub, and other insects hurtful to agriculture, and this circumstance, combined with many others, renders its frequent repetition objectionable. Clover lea as a preparation for wheat has been tried in almost every part of Europe. To use the emphatic words of scripture, "It has been weighed in the balance and found wanting," and I have not a doubt but that in a few years the practice of plowing in clover for wheat will be discontinued in America. The land is becoming cleared and there is a wide field opening for scientific farming. The raising of stock is becoming profitable, and of course more pastures and hay will be required. In my opinion the following six course rotation will be found valuable, as it gives a considerable quantity of meadow and pasture, does not require a great outlay in labor or manure and separates the wheat from the oat crops.

SIX COURSE ROTATION.

This farm is divided into 6 fields, and the crops of each are manured for six years.

	Field 1.	Field 2.	Field 3.	Field 4.	Field 5.	Field 6.
Year 1.	Corn, potatoes or fallow, manured.	Oats.	Timothy, 3d year.	Clover and timothy 2d year.	Clover, &c., 1st year.	Wheat with clover, &c.
Year 2.	Wheat with seeds of clover, timothy, &c.	Corn, potatoes or fallow, manured.	Oats.	Timothy, 3d year.	Clover and timothy, 2d year.	Clover and timothy, 1st year.
Year 3.	Clover meadow, 1st year.	Wheat, with clover and timothy seed.	Corn, potatoes or fallow, manured.	Oats.	Timothy, 3d year.	Clover and timothy, 2d year.
Year 4.	Clover and timothy 2d year, meadow or pasture.	Clover and timothy 1st year.	Wheat with clover and timothy.	Corn, potatoes or fallow, manured.	Oats.	Timothy, 3d year.
Year 5.	Timothy, &c. Meadow, or 3d year pasture.	Clover and timothy 2d year.	Clover and timothy 1st year.	Wheat with clover and timothy.	Corn, potatoes or fallow, manured.	Oats.
Year 6.	Oats.	Timothy 3d year.	Clover and timothy 2d year.	Clover and timothy 1st year.	Wheat with clover seed, timothy, &c.	Corn, potatoes or fallow, manured.

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This course of rotation is calculated to keep the land *rich* and *free from weeds*, and is suited to any farm, *large or small*. By means of it, the farmer can, by sowing the perennial clover, or American cow grass, have a stock of that useful plant for three years, or if he wishes to raise timothy for hay, he need not sow clover at all, but can sow timothy, &c., and mow or pasture it, for three years. In the preparation for wheat, if potatoes do not answer, the farmer can fallow or plant corn in their stead, or have an additional field for potatoes and turnips, after which, barley laid down with clover and grass seeds, will answer well, and the course proceed as usual. A correct rotation is a matter of such importance to the farmer that it needs his *closest attention*, and amply repays for the labor and skill expended in adopting it.

After the expense of clover seed, timothy, &c., required in laying down land by this rotation, the farmer will enjoy the benefit of a hay or grass crop for three years, and the land will improve by rest.

In examining the causes of the frequent failures of the clover crop, it will be necessary to look to those countries where it has been most extensively cultivated, and to examine the opinions of men who have been long employed in its culture.

The English, German, and Belgian farmers have frequently suffered great loss from the failure of their clover crops. Here is the experience of some of them. At a great meeting of German land holders, held a few years ago, Professor Schiewser stated, that, "with respect to the repetition of red clover, we have abundant evidence in Saxony, where the soil is neither too loose nor too close, is *deep*, so that the plow can go eight inches down, and is also rather moist. Clover is the most certain, and may also be repeated the most frequently, not only every six years, but with *high farming*, even every four years.

"In an inferior soil, we may be quite sure that clover will not do well every *four years*, as has been proved in the vicinity of Dresden, where the land is completely *clover sick*."

At the close of the discussion at which these remarks were made, the chairman gave it as his opinion, "That a repetition of clover after six years, was allowable in every part of Germany with which he was acquainted. That in favorable soils, four years might be considered a sufficient interval, but that to bring two crops of clover *nearer together*,

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was always doubtful, and if successful, could only be regarded as an *exception* to the general experience of German agriculturists."

This is the opinion of Germany.

We will next learn what England thinks of this question—the clover failure—and we now take the experience of Mr. John Turner, of Banten, near Exeter. He says: "I have experienced the loss of the red clover plant on my own farm very often, where there was the very best plant at harvest, and that, too, on the best soils.

"The result of my own experience for more than twenty years, is this: That in nineteen cases out of twenty, the failure is entirely owing to the *stubble having been fed bare after harvest.* The plant is by this means weakened, and rendered unable to withstand the rigors of winter. I have so frequently proved this, that I have not the slightest doubt on the subject; in every instance where I had not fed it bare in the autumn, *that piece was the admiration of all in spring.*" These are the opinions of a practical man, an intelligent Devonshire farmer.

We will now take the evidence of a man pretty well known in the agricultural world, the Rev. W. Thorp of Wolmsly, in Yorkshire. He attributes the failure in many instances to a want of *cohesiveness in the soil.* "Some lands," he says, "as those situated in the oolite and magnesian limestone, after being tired of clover, are by *rest* able to produce this crop; because the more frequently the clover, or tares, or any large tough-rooted plant is raised, the less compact and lighter in weight does that soil become, yet in time by the decomposition of these roots and the cultivation of bulbous-rooted plants, and the treading of the soil by the sheep in eating them off, a reconsolidation of the soil takes place, and the same land is again able to support clover, against the severity of the frost. This explains the reason why in some fields, from which the clover crop has nearly disappeared, the headlands where the horses turn in plowing usually preserve the plants untouched by the frost. On the stony, tenacious clay lands around Hemsworth, red clover after teasles invariably fails, whilst upon the magnesian limestone around Kirksmeaton red clover after teasles succeeds better than after any other crop; because in the one case, the continued treading of the teasle-spittalers and reapers makes the strong land *too tenacious*, whilst the treading on the light and porous limestone, affords the *consistency required* to preserve the crop in winter. It explains why claying or marling clover-sick lands, should in

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Norfolk, be a sufficient remedy; because clay and marl *give tenacity* to the soil. It explains the cause of the numerous failures of the growth of Trifolium Incarnatum, (scarlet clover,) which would be an invaluable plant to the farmer, but it invariably dies in the winter if sown upon land recently plowed; whilst if stubble land before sowing be simply scratched with the harrow, and after sowing compressed by the roller, *it will stand the winter.*"

These are the opinions of two practical men. The one a southern, the other a northern English farmer, and they cannot fail of being interesting to every clover cultivator.

In some valuable researches, made by Prof. Wray and G. Ogston, (see Journal Royal A. Society of England, Vol. 9, page 136,) the chemical composition of red and white clover grown upon two widely different kinds of soil, were ascertained. The soils were, the one a *sand*, the other a *clay*. The specimens after being dried in the air, contained each, per cent:

RED CLOVER.

	Sand.	Clay.
Water,	13.97	12.20
Ash,	6.77	7.12

WHITE CLOVER.

	Sand.	Clay.
Water,	12.60	12.00
Ash,	7.70	7.61

The next table gives the composition of 100 parts of their several ashes:

RED CLOVER.

	Sand.	Clay.
Silicia,	4.03	2.66
Phosphoric acid,	5.82	6.88
Carbonic acid,	12.92	20.94
Lime,	35.02	36.76
Magnesia,	11.91	10.53
Sulphuric acid,	3.91	4.46
Peroxide of Iron,	0.98	0.95
Potash,	18.44	11.30
Soda,	2.79	....
Chloride of Sodium,	4.13	0.58
Potassium,		5.92

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WHITE CLOVER.

	Sand.	Clay.
Silicia,	4.63	2.74
Phosphoric acid,	10.93	12.12
Carbonic acid,	18.64	17.41
Lime,	26.32	26.51
Magnesia,	7.46	8.83
Sulphuric acid,	7.05	7.38
Peroxide of Iron,	1.17	2.76
Potash,	15.17	13.50
Soda,	3.03	4.41
Chloride of Sodium,	5.56	4.32

Upon a careful examination of these tables will be seen how little difference exists between specimens of the same variety, grown upon *different soils*, also how much lime and potash predominate over the other ingredients.

In Belgium the cultivation of red clover is a matter of great importance to the farmer. It has therefore received much attention and has attained to the highest state of perfection; in fact the Belgian farmer's prosperity depends much on the successful cultivation of clover, and his motto is, "no forage, no cattle; without cattle, no manure, and without manure, no crop." There are few pastures in Belgium. The clover is cut and carried to well-littered stalls, and thus becomes an abundant *source of manure*, and the cattle are made subservient to the production of their own nourishment. The luxuriance of the Belgian clover crop is astonishing; this is to be accounted for in the fine preparation and extraordinary cleanliness of the Belgian husbandry. The soil is *rich*, no weed is suffered to exist, and the clover plant can tiller uninterruptedly and possess itself of the soil. The extreme attention of the Belgian farmer to destroy weeds, may be illustrated by one example. The *orobanche* is a parasitical plant (something similar to the convolvulus or bind-weed so well known to American farmers) which attaches itself to the pea family. This weed, in land where clover has been repeatedly sown, stations itself at the root, and if permitted to obtain its wonted vigor will destroy an entire crop.

The farmer considers his work but half done, if this dangerous weed be permitted to appear on the surface. He inspects his crop early in

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spring. The moment the orobanche establishes itself at the root, the stem and leaves of the clover, deprived of their circulating juices, fade into a sickly hue, which the farmer recognises and roots up, and destroys the latent enemy. If this be done in time the crop is saved; if not, the infected soil refuses to yield clover for many years. Clover crops in America are frequently injured by a similar weed, and some good may be done by calling attention to this subject. The amount of seed sown in Belgium is about 6½ lbs. to the American acre. This is a small quantity, yet amply sufficient in such soil, to produce an abundant crop. We have much of clover-sick land, and it has been our lot to see a good deal of it, and more than this, we have seen the disappointed farmer clover-sick too, and the grain merchant, tired of the bad wheat which too frequent repetition of clover produced, exhibited strong simptoms of *clover sickness too.* As far as my experience goes, I utterly *condemn* the practice of growing wheat from clover; it may do well once in the same field, but rarely if ever succeeds a second time, and the wheat produced is mostly of an inferior kind.

The best crops of clover which I have ever seen were raised on wheat, sown in the spring after the surface had been completely softened and freshened up by harrowing with light harrows. The ground after sowing was compressed by the roller; this mode of culture, while it ensures an unfailing crop of clover, *is of singular service to the wheat*, as all cracks and fissures in the soil are filled up, the crust of the surface broken and pulverized, and the soil made fine and suited to nourish the young roots of the wheat. A level, fine surface is best calculated to resist drouth and to retain moisture; besides, in mowing or cradling the grain or hay crop, every one will admit the value and importance of that neglected implement, the roller, and the advantage of an even surface will appear. Clover succeeds best when sown without a grain crop of any kind, and some experienced farmers are beginning to find this out, also to discover that a crop thus sown amply repays the apparent loss which is suffered by this mode of treatment. Two good crops cannot be expected off the same field at the same time. If the grain crop be heavy, it will injure the clover; if the clover crop be good, it will get the start of the grain and injure it materially. I have seen many kinds of grass sown with clover. Orchard grass or cock's foot (botanically Doctylis Glomerata,) is a good meadow grass, and

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ripens somewhat earlier than timothy. Italian rye grass is an excellent grass, but it is not found to do well in this country. Perennial rye grass ripens at the same time as clover, and is therefore best suited to be sown with it. It is said to degenerate in this country, but it is well worth importing and renewing by a frequent change of seed.

In laying down land for permanent meadow or pasture, perennial grasses ought to be used; such as sheep and meadow fescue, sweet scented vernal grass, and a certain quantity of white clover; thus a stock of grass would continue in the field after clover *had disappeared.* Timothy is certainly a good grass, and it possesses one quality which many others are destitute of—it retains its nutritious properties even when *perfectly ripe,* and the long heads filled with grain are much relished by cattle—but it does not ripen at the same time with red clover, and this is a great inconvenience.

Different kinds of grasses carry off different quantities of inorganic matter from the soil, and consequently have not *the same effect* on the land. According to analyses made by Prof. Johnston, 100 lbs. of the hay of the undermentioned plants contained the following quantity of inorganic matter:

	Rye Grass.	Red Clover.	White Clover.	Lucerne.
Potash,	8.8	19.9	31.0	13.4
Soda,	3.9	5.3	5.8	6.2
Lime,	7.3	27.8	23.5	48.3
Magnesia,	0.9	3.3	3.0	3.5
Alumina,	0.3	0.2	1.9	0.3
Oxide of Iron,	0.0	0.0	0.5	0.3
Oxide of Manganese,	0.0	0.0	0.0	0.0
Silicia,	27.7	3.6	14.7	3.3
Sulphuric Acid,	3.5	4.5	3.5	4.0
Phosphoric Acid,	0.3	6.6	5.0	13.1
Carbonic Acid,	0.1	3.6	2.1	3.2

It will be seen by this table, that in the constitution of the clover plant, *lime and potash predominate,* and if we want to raise a good crop we must supply the real food of the plant. In this matter Agricultural Chemistry is of great importance, as by analysis can be ascertained the structure of the plant, the composition of the soil, and the kind of manure best suited for the crop. If we go on sowing clover in

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the same field, year after year, we exhaust the soil of the inorganic substances necessary to form the plant. Nature follows a course of rotation. A forest of oak is followed by pine, and beech will be followed by birch; this may be questioned, but *nevertheless it is an ascertained fact*; and Professor Johnston, in his lectures on Agricultural Chemistry, states that the black forest in Germany, consisted first of *oak* trees, then of *pine*, and it is now again covered with *broad leaved trees.* We cannot expect to raise a good crop of clover or of anthing else, without clean tillage, correct rotation, and suitable manure.

Many persons are prevented from saving clover seed from the difficulty of hulling or separating the seed from the husk. It is, indeed, to be lamented, that a *cheaper and simpler machine* for the purpose, than the cumbrous and expensive clover-huller, has not been invented. This grates or grinds the seed with such violence that the lobes or cotylydons are frequently rent asunder and the seed destroyed by being split in two, by the violent action of this machine.

It is sometimes better to sow the seed in the husk, the covering which nature provided for its protection. One bushel of husks generally produces one lb. of clover, and seed thus sown has been found to grow exceedingly well, and to resist drought much better than naked seed. It is necessary to thrash and seperate the heads and legumes before sowing, in order to seperate the tufts which sometimes adhere to each other firmly.

Many western and northern farmers recommend the sowing of clover in the spring when the snow covers the field, so that the sower may perceive his tracks and be thus directed in spreading the seed. This method of sowing may chance to succeed; but it plainly tells that the ground has *not been* properly prepared by harrowing, and that no covering awaits the seed when the snow thaws away.

I have frequently seen a clover sowing machine perform its work remarkably well. By it the seed is spread broadcast to the breadth of 6 or 8 feet at each journey; for it, of course, the seed must be *hulled and perfectly clean.* One great objection against using seed in the hull is, that in that state it is very difficult to ascertain the amount of seed that you are putting into the soil. Another objection is, the hulls wont pass through the clover sowing machine.

I have spread large quantities of clover seed, and I have rarely, if

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ever, had any mistakes in the clover crop, as I always managed to have the surface well freshened up by the harrow, and on such a surface tracks are easily seen. In drilled wheat the sower can manage to take a certain number of drills at each round, placing marks at either end for fear of mistakes. In ridges the furrows are a sufficient mark. In all cases I strongly recommend the clover grower to soften the surface by harrowing to the depth of *one inch*—no more is required—and to compress the soil by rolling after the seed is deposited. Purple, kidney-shaped seed is best. The more purple seeds in the sample the better. British and French clover merchants sometimes color the seed in order to improve the value of the sample. I have frequently had my fingers stained a purple color when sowing clover seed. Dishonest dealers stain the seed of common Trefoil, (mellilot) and sell it as red clover, although it is not worth half the price of the latter.

The quantity of seed requisite for an acre depends on the state of the soil. If it be clean, a small quantity, say 7 lbs., is enough. If it be overrun with weeds a larger quantity is necessary in order to give the clover a better chance in the struggle for life.

Some farmers approve of sowing clover at the same time with oats or barley. This may sometimes succeed, but the chances are, that it will either be smothered by too much earth, or get ahead of the crop and injure it materially, and be heaved up by the frosts of winter from a want of cohesiveness in the soil. I would give the oats or barley a start of the clover, then sow the seed and use a heavy roller.

I have frequently seen a light harrow used to cover the seed before rolling with good effect.

Many excellent plans for curing clover hay have appeared from time to time in the Michigan Farmer, from Mr. Moore of Schoolcraft, and others. Any of these directions if followed up would add considerably to the profits of the clover crop; of what avail is all the labor and expense of cultivating a crop if it be permitted to go to loss in harvesting?

The surest and safest course is to cut early, just when a few of the blossoms are begining to turn brown; expose the clover as little as possible to the sun, make it up into small cocks or mows, and draw into the barn immediately. Do not suffer the stem or leaf to become dried up in the sun and rendered worthless as forage for your horses or cattle. Clover

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hay as it is generally saved is worthless, yet by a little care it can be made a nutritious food for horses and cattle.

House feeding is not as yet much practiced in Michigan, but the time is coming when its value will be properly appreciated. It is a pleasing sight to behold cattle and horses enjoying a plentiful feed of clover or any other green crop safely sheltered from the scorching sun of summer, and protected from the swarms of flies which infest fields and forests at that time of the year.

By house feeding, stock are vastly improved, manure greatly increased, and feed considerably economised.

In *saving clover seed* it is well known that the second cutting is always selected, and the stems allowed to be almost perfectly ripe before they are cut. At the last Michigan State Fair, a machine for "collecting the heads of clover off the standing straw" made its appearance, and as the second crop or cutting of clover is sometimes thin and unfit to be gathered by the scythe, this new machine is likely to be of much use in enabling the farmer to collect and *save* what would otherwise be *lost*. It is simple in construction, and not costly.

A top dressing of manure in spring has always been attended with the best results to the clover crop. Gypsum, or as it is most commonly called, plaster, is an excellent manure for clover, and as it is easily procured by the American farmer, every clover grower should apply it to his crop in spring. A small quantity will have a great effect. The urate of the London Manure Company is Gypsum saturated with urine; immense quantities of this valuable manure are sold annually. Every American farmer might easily manufacture a supply of it for his own use.

Having now given my own opinion, and quoted the experience of practical men, I will conclude this essay by arranging the causes of clover failure in a form which can be easily remembered.

CAUSES OF FAILURE IN CLOVER.

1st. Sowing too frequently in the same field. From this cause the soil becomes exhausted of those mineral or inorganic substances which are required to form the plant, and the soil becomes less cohesive, and less able to protect the plant against frost or drought.

2d. From the weight or luxuriance of the grain crops with which

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clover has been sown, by which the young plants, *if not completely smothered*, are drawn up and weakened so much, that their slender roots are unable to withstand the frosts of winter.

3d. Want of preparation in the soil. Clover is frequently sown on land which has not been sufficiently harrowed and freshened up so as to form a proper seed-bed; consequently the seed is not covered, and does not vegetate.

4th. From a want of cohesiveness in the soil. From this cause the rays of the sun reach the roots, and they wither away, or they are driven downward in search of food into the cold subsoil which is unsuited to their growth.

5th. From turning in cattle or sheep to eat down the plants, during the first year. From this cause the young roots become overtasked in trying to furnish a fresh growth, and are weakened and unable to withstand the severity of winter, *as the rain enters the hollow pipes of the stems which are eaten off, and the frost swells and bursts them.*

6th. From smothering the seed by *too much covering;* this frequently occurs when the clover is sown with a spring crop of any kind, and dragged or harrowed with a heavy implement.

7th. From the lodging or laying of grain crops; by this means the young plants are smothered.

8th. From weeds overrunning the field, and choking the plants, and from sowing too much grass seed with the clover.

9th. From sowing the seed among wheat, oats, or barley, when the crop is too far advanced to admit of harrowing or rolling. From this cause much clover is lost.

10th. From sowing in wet marshy soil, or near the borders of creeks, or rivers, liable to be flooded in the fall and spring. Frost acts powerfully in such places, and generally kills the plants.

The remedies for all these causes of failure, are obvious and within the reach of every farmer.

In conclusion, I will remark that there are some facts which ought to be remembered by every cultivator of clover; some of these may be of use, viz:

Clover requires exceedingly *clean* tillage.

Also, a compact, *cohesive* soil.

It will be injured by being *fed bare* in autumn.

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It will be damaged by a *heavy crop of grain.*

It requires *well drained* land.

A proper *rotation* is essential.

Gypsum and wood ashes are *excellent manure for it.*

It ought to be *cut* as soon as the blossoms begin *to fade*, and cured without much *exposure* to the sun.

Now, kind reader, farewell; if you have derived any *useful information* from the facts stated in this Essay, my time and labor in *writing*, and yours *in reading it*, have been

"Wisely spent and well.

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THE GODOLPHIN ARABIAN.

J. C. HOLMES, ESQ., *Secretary Michigan State Agricultural Society:*

SIR—In the transactions of the State Agricultural Society for the year 1852, at page 127 will be found an article written by me entitled "The Blood Horse." In that article I stated that the origin of our present race of thorough bred turf horses sprang from the Darley Arabian and the Godolphin Arabian. The evidence of the origin of the Darley Arabian was conclusive from history in my possession, not so with the Godolphin Arabian, but from the fact of his always being called Godolphin Arabian, in the pages of the American Turf Register, I concluded he "was of the same class" of Arabian horses. However, in that, I must acknowledge that I was mistaken. A. L. Elwyn, Esq., of the city of Philadelphia, being no doubt a distinguished horseman and somewhat acquainted with the origin of the Godolphin Arabian, politely wrote you that I was in error in reference to his peridgree and suggested a correction. He has since, at my request, furnished me with the following statement, and which I am happy to copy at length for the benefit of those concerned.

"The best and most, perhaps only, reliable history of the Godolphin is in Lawrence's work on the horse, a very expensive but valuable book, published in London in 1809, now out of print and very seldom to be seen. Fond as I am of books and animals, the horse in particular, I have never seen but two copies of this book. One when I was a child, and was attracted by the engravings, with which it is full, of the most celebrated horses; the other, which was found for me in London after several years' search. Lawrence *saw* the Godolphin, and describes him as a dark brown horse, of about 15 hands, delicate limbs, a bad figure and

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a crest unnaturally lofty. His history is obscure, like that of most adulterers, and he said very little for himself, till accident put him to a mare. All that is known, is, that he was bought out of a cart in Paris—taken to London by a Mr. Coke—given by him to a Mr. Williams, and by this person presented to Lord Godolphin. Knowing nothing of him, and not perceiving or appreciating any qualities in the horse, he was kept merely as a teazer to "Hobgoblin." This horse refused to cover "Roxana" on some occasion. The groom, in a fit of malice, let the teazer cover her. The product was "Lath." "Marsk" was from the Darley Arabian—not the Godolphin. As to whether the Godolphin was an Arab or Barb, the fact is not positive, as no one knows him before he reached Europe; but it is conceded by Lawrence, and all other writers since, that there is very little doubt that he was a Barb. It is better, perhaps, to consider the point as settled—as to dispute it under the circumstances could determine nothing. This caused me to take the liberty with your paper, in my letter to Mr. Holmes, which has brought us together in this way.

The philosophy in the Godolphin is the interesting part of his history, and of extreme interest to all breeders—whether of human or brute beings. Something was wanted in the British race horse of that day, no one knew what. The Godolphin by an accident makes the imperfect perfect, though he himself does not seem to have possessed a single racing quality, and no breeder would have ventured to have used him more than the commonest cart horse. This fact shows how blindly we proceed in a matter so mysterious as the reproducing animal life, how little we really know of the business, and how unwise it is to depart from or forget the rule—that like produces like. Accident, and nothing else, was the means of making the English race horse, the noblest animal the world has seen. He is now, under the management of man, decaying; though this, perhaps, is owing to cupidity more than ignorance of the art of breeding."

I feel much indebted to Mr. Elwyn for his correction; nevertheless, it does not alter my position that the superior horse for all purposes is the "Blood Horse." He is the best traveler, has the most speed and bottom, and can do any kind of farm work with greater ease than any other horse of his size.

In ancient times the Arabs did not only look to pedigree as a distin-

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guishing trait of superiority, but they put their horses to a thorough test; it was this: they mounted the animal at sunrise in the morning, galloped him ninety miles before sunset, then plunged him into water up to his middle, let him stand for a time, took him out and gave him some barley, and if he eat it the animal was pronounced pure; if he refused it, he was discarded as impure.

We have no horses that could stand such a test, but I knew a blood horse in Pennsylvania that performed four trips a week of fifty-three miles each, for three years in succession, without losing a trip, driven to a sulkey carrying a boy and mail bag—none but a blood horse could have stood such a test.

Respectfully yours,

A. Y. MOORE.

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BRAHMA FOWLS.

The subscriber certifies that he bred four Brahma pullets; they were hatched February 27th, 1854. Two commenced to lay the day they were four months old; the other two the following week. They have laid one hundred and thirty four eggs, and are now, Sept. 22d, laying daily. I allowed one to set on her own eggs; she hatched nine chicks on the first day of September, which I gave to another hen to brood, and she is now laying.

Also a Cochin and game hen, half and half, that was laying on the first of January 1854, since which she laid seventeen eggs, set and raised a brood; she then laid twenty seven eggs, set again, raised the second brood, again laid sixteen eggs, and has now her third brood, making sixty eggs and three broods of chicks since January 1st to this time, Sept. 22d. She had no extra care, runs at large with the Bantams.

The four Brahma pullets were kept in the chicken yard and fed freely on corn meal, screenings and lettuce. The four have consumed about five bushels of grain at 37½ cents a bushel, and weigh twenty seven and ¾ pounds. All the eggs full size.

M. FREEMAN.

Schoolcraft, Sept. 22d, 1854.

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DUNLOP CHEESE.

J. C. HOLMES, ESQ.:

SIR—The following is our method of making the "Dunlop Cheese," a sample of which was shown at the Fair of the Michigan State Agricultural Society, in September, 1854:

We set the evening's milk in pans, take the cream off in the morning and put it in the tub with the morning's milk. We then warm the evening's milk to 92 ° and put it all together; then we put in the rennet, which is prepared in the following manner:

Cut the rennet into small pieces, boil a quart of water, let it stand until milk warm, then turn it on the rennet, let it stand twenty-four hours and it will be fit for use. By adding some of the first drawn whey and a little salt it will be improved and will last longer. If the rennet has any bad odor it will injure the flavor of the cheese.

When the milk becomes solid, which will be in fifteen or twenty minutes, it must be broken carefully and thoroughly with the hand. Let it stand until the curd settles down, press it with the hand, keeping the curd in a solid lump. As soon as it feels solid all around, dip off the whey and cut the curd into pieces about three inches square, put it into the dripper and press lightly for a few minutes, then cut into pieces one inch square and press as before; when it stops dripping put the curd into the tub and cut it up fine with a cheese-knife, put in the salt and mix it well with the curd; it is then ready for the hoop and the press.

After the cheese has been in the press six hours we change the cloth and again put it in the press, where it remains till the next morning; it is then taken out, the cloth taken off, and placed upon a stool so as to be handy to turn. We then put a dipperful of hot water over the upper side, then turn the cheese over and serve the other side

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the same; after standing two minutes we again put it in the press with the same cloth upon it as before, press one hour, then put a dry cloth on, and change every twelve hours till it is done.

The scalding the cheese at the time we do makes the rind tough, and prevents it from cracking. It also saves the trouble of covering with a cloth, greasing, &c.

When the weather is very warm we make up a cheese at every milking provided we have a sufficient quantity of milk to make a cheese the size we wish; if not we put a little salt on the curd and press it all night in the dripper, then mix it with the morning's curd at the time of salting.

When the cheese comes out of the press, we put it in a cool place, and turn it and rub it with a cloth every day for about a month; after that once or twice a week will answer.

There are many different ways of making cheese, such as putting hot water on the curd, scalding the whey, &c., &c., I suppose with the intention of hastening the process; but as far as our experience goes, these processes are injurious both to quality and quantity of the cheese.

In order to make butter and cheese of the first quality, two things are indispensable. First, the cows must have plenty of wholesome food and pure water. Second, all the dairy utensils must be kept perfectly clean and sweet.

Cheese making is a trade, and those who wish to excel in it should serve an apprenticeship at it.

I think it has now been clearly proven that a first rate quality of cheese can be made in Michigan, in fact equal to the best Hamburg; and it would be for their interest if the farmers of Michigan would turn their attention more to this branch of farming than they have hitherto done, the soil and climate being well adapted for it.

Yours, respectfully,

JOHN PATON.

Amherstburg, C. W., Jan. 10, 1855.

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DAIRYING IN OHIO.

BY ETHAN ALLING.

J. C. HOLMES, *Sec'y. Michigan State Board of Agriculture :*

DEAR SIR—When at your State Fair last fall, I was happily disappointed to find that there were so many noble blooded horses, cattle and sheep owned in Michigan. I knew you had good land, and raised good crops, but did not expect to find such Devons, Durhams, &c., as were there on exhibition. We have good grazing land in this part of Ohio, and some attention has been paid to blooded stock, which has invariably paid well for the enterprese, but our principle business is dairying, consequently bnt few cattle are raised, the milk being considered worth more than the growth of young stock, replenishing our stock of cows every spring from the southern and western counties at less price than we can raise them, say $25 a head. There have been for years past as many as 2,000 cows milked annually in this township of 5 miles square; the average produce of each amounting to $30, which is mostly net gain to the owner if he has a family adapted to the business, to wit, a family of 5 persons. The three children from 10 to 18 years of age will easily manage a dairy of 30 or 40 cows without hired help, except a few days in haying, and without interfering with the children's school hours, or other necessary business of the farm. In fact they have little else to do, as they raise no wheat, or plow any more land than is necessary for family vegetables, and occasionally a few acres of corn. The produce of only about one cow being necessary to bread the family, and the same quantity of our clay land that would produce 30 bushels of wheat will more than summer and winter the cow.

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Cows that calve in March are preferred; the calf is either killed and thrown away (except skin and rennet,) or sold to the Jews of Cleveland for food, when from two to six days old. Then milking commences and is continued, if the cow proves to be a good one, until about the 1st of December. If otherwise she is dried off in September, partially fattened, and in November sold for beef, or put into a drove to go west, perhaps to Michigan. The next spring another is bought to fill her place. In that way the dairyman soon gets a lot of choice cows. The average price of cheese in this place for the last 4 years has been 5½ cents a pound when 20 days old. It is very little cured at that age, and consequently there is not much loss to the maker in weight by shrinkage. The average price of butter for the same time has been 15 cents a pound, therefore all the cream is got off the milk that can be before it is set for cheese, the fact being understood that the properties of milk that make butter have less to do with those that make cheese than is generally supposed. So far as the weight of the latter is concerned the quality is of no consequence in the southern market, provided it can be got there before it has time to cure and become hard, curd being preferred to cheese a year old, and often sells for a higher price. Cincinnati is our market for cheese, and from there it goes down the river to New Orleans, &c. Most of our butter goes to New York. The next and last product of the dairy is pork. The whey of the milk of 5 cows will make one hog very fat.

The southern part of Michigan being well adapted as to climate for the dairy, I have no doubt that many of your farmers, those that have good grass land, will soon keep more cows and use the plow less, therefore I have been rather particular to explain how our Yankee dairymen have got, and are getting rich. with, in my opinion, the least sweat of the brow.

Respectfully yours, &c.,

ETHAN ALLING.

Twinsburg, O., Feb. 23d, 1855.

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MEDITERRANEAN WHEAT.

J. C. HOLMES, ESQ.:

DEAR SIR—In compliance with your request I send you an article on Mediterranean wheat for the Transactions of the Mich. State Agricultural Society.

Nothing, perhaps, at this time interests the farmers of Michigan more than the raising of wheat—it is the great staple product of our country. We have a soil and climate well adapted to its culture; and yet, no variety of grain has so many enemies to contend with. The last year, in some States, the wheat crop was almost a total failure; and I may say it was a partial failure in a great portion of our own State. The "fly" has made sad ravages in some places, and the weevil has commenced its destructive operations.

The wheat region of the United States has become somewhat limited, and the increase of population, to consume, is very rapid. In view of all this, it is of great importance, not only to the producer but to the consumer, that great care should be exercised, both in the cultivation and the selection of the safest and best variety for seed. I would therefore intrude my opinion, founded upon several years experience, but which has, so far, generally been in opposition to public opinion—that opinion has been, doubtless, without experience, merely receiving it from millers and dealers in the article.

Some seventeen years since I sent to New Jersey and got a pint of Mediterranean wheat, which I sowed, and from *that* I have raised it nearly ever since. I frequently contrasted it with other varieties as to yield and invariably it yielded most, and for a few years past I have raised no other kind.

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The objections raised against it are, that it is a red wheat and quoted less in market. It is a little harder to grind, until millers become accustomed to it, to produce flour free from specks, and probably it will take ten pounds more wheat to make a barrel of superfine flour than of the best white wheat.

The advantages are, it yields more to the acre and weighs heavier per bushel; it is not subject to the ravages of the "fly" at all; not much troubled with the "weevil," (I supposed it was entirely exempt from them, but recently I have been informed, that in the State of N. Y., the weevil has been discovered in it, but not badly). It has not, with me, ever been subject to smut or rust; it is of very vigorous growth, not easily winter-killed, ripens early, the grains are large, heads short and bearded but not disagreeable to handle, the straw being very soft, and it binds easily; does not shell easily by handling, yet threshes freely. The flour produced from Mediterranean wheat is stronger, has, according to analysis, a smaller proportion of water in it than any other wheat. The bakers consider it more profitable, and in the city of Philadelphia, when I was there, a few years since, it sold at a higher price by retail, than any other kind, the bread being considered more healthy. I prefer the bread for my own use to any other, it is sufficiently white, more spongy and retains moisture better.

I generally flour my wheat and have no trouble in disposing of it; have sent it to New York and Detroit markets, and always inspected superfine and brought a full price.

On account of the yield, I prefer it, at least, by ten per cent., and now, the advantages against the enemies of wheat are fully twenty-five per cent., in my estimation.

On Door Prairie, Indiana, almost all the wheat now raised there, is Mediterranean, and eastern buyers buy it freely at a very trifling figure below white wheat.

I feel quite confident that we shall be obliged to raise that kind of wheat almost entirely, in a few years, on account of the "fly" and other enemies, and would earnestly invite the farmers to give it their attention.

Very respectfully yours, &c.,

A. Y. MOORE.

Schoolcraft, Feb. 22, 1855.

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WHITE FLINT WHEAT.

J. C. HOLMES, ESQ.:

SIR—My farm is situated in the town of Troy, Oakland county. The soil is various; a portion being a ridge of sand and gravel, the balance a rich loam, with clay subsoil.

Upon this farm I have raised the White Flint wheat for the last 12 or 14 years with the following results:

My yield has been from 20 to 32 bushels per acre of plump, handsome wheat, weighing from 60 to 64 lbs. per bushel.

I sold my crop of 1853 in Detroit in May and June last, for $1 62 to $2 00 per bushel. The average weight of the crops was 63 lbs. per bushel.

I have raised no other wheat during the time above stated, except my last crop, which was the Soules wheat. I procured the seed from Linus Cone, Esq. It did not have a fair trial, as it was badly winter killed. The yield was but 12 bushels per acre, and weighed 54 lbs. per bushel.

I plow my summer fallow 10 or 12 inches deep. I find by deep plowing the straw is shorter, stands up better, I get a better yield of grain and of a better quality.

My seeding last fall was one-half white flint, from old seed, and one-half Soules wheat, sown side by side.

I never raise chess or any other foul stuff among my wheat. I sow clean seed on clean land, and reap clean wheat. It never turns to chess. I think the flint wheat is better adapted to old land, deeply plowed, than to new land with a rich, mucky, or vegetable mould. In such soils the straw is apt to crinkle down and the berry to shrink. The best variety for such soils, is, in my opinion, the velvet bearded wheat.

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I moved into Michigan in 1825 and brought with me from Cayuga county, N. Y., one-half bushel of white flint wheat for seed. I raised 2 or 3 crops and thought it not adapted to my new and rich land. I changed it for the velvet bearded, and that again for the flint, after I had done sowing new land, and had commenced summer fallowing.

I have underdrained a portion of my wheat land and find it to answer a good purpose, as the land can be left with a level surface instead of being thrown into narrow lands, and is in a much better condition for seeding. I think that all lands with a clay sub-soil will pay underdraining.

JAMES BAYLEY.

Big Beaver, April 13th, 1855.

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CULTIVATION OF THE POTATO.

BY E. C. ROBERTS, OF SALEM, WASHTENAW COUNTY.

J. C. HOLMES, ESQ.:

SIR—The following is my method of raising potatoes, and which I recommend to my fellow farmers:

Prepare the ground in the fall; for instance, let it be a wheat stubble; plow deep in September, harrow soon after, throw it in ridges in October or the first of November. When the ground becomes sufficiently dry in the spring, harrow, plow and ridge again, so that the tops of the ridges will be three feet apart, cross furrow the same distance, then drop a whole potato of some hardy variety in the furrow at the crossing of every ridge; this will place the potato hills three feet apart each way; cover with a hoe three or four inches deep, observing to have the top of the hill at least two or three inches below the surface. Provided the land has been made level this work can usually be done in this climate the latter part of April or the first of May.

As soon as the sprouts begin to break through the earth harrow the ground once over, letting the team straddle the rows. As sown as the tops are five or six inches high cultivate both ways. If weeds should afterwards spring up, destroy them with the hoe or by pulling them up. Dig the potatoes in October and be careful not to cut or bruise them. Put into the cellar as many as will be wanted for winter use, but for spring and summer use they should be buried after the following manner: Select a piece of dry ground, if it is sandy a hole may be dug a foot or more in depth, put a layer of potatoes on the bottom, throw a layer of earth among them, then another layer of potatoes, continuing thus till all are buried, observing to throw no straw or other substance

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among them that will produce heat. Cover them with about four inches of earth, then about four inches in thickness with straw, then a thin covering of earth, and slightly beat down with a shovel. Before winter sets in increase the earth to twelve or eighteen inches in depth above the straw, and when the earth becomes frozen from four to six inches give it a covering of barnyard litter, or sawdust. Build a pen of rails around the pile of potatoes, and a roof over it to carry off the rain and protect from the sun.

In raising potatoes to plant a different course should be pursued, thus: select a dry piece of ground on an eastern or northeastern slope, prepare as before, but instead of dropping the potatoes in hills, drop them in the cross furrows, about 1 foot apart, cultivate as before, omitting the cross cultivation. In the autumn before the ground freezes an inch in depth, cover the rows first with buckwheat chaff, then with a sufficient quantity of straw to protect the potatoes from frost, or cover with leaves from the forest if more convenient. This is easily done if the seed patch be narrow. Dig the potatoes early in the spring, before they sprout, and plant immediately, being careful to plant none but fair, good sized tubers.

Green sward should not be used the first year for potatoes, unless it be well rotted; neither should potatoes be planted on land that has been manured the same year.

Corn stubble, if it has been kept free from weeds, makes good potato ground.

If the above course be pursued with the potato, nature will work its own cure, the innocence of the insect tribes that feed on decaying vegetables will be apparent to all, and our potato fields will blossom as freely as the rose and bear seed balls as in former years.

To raise potatoes from the ball, the best and most hardy varieties should be selected. Take such hills as have large clusters of balls, cover each hill at night with a box made for the purpose, for 3 or 4 weeks in the fall, to prevent the frost from killing the tops, then the balls may be picked off and buried in the same manner as above described for burying potatoes.

The seeds should be planted in well prepared ground as early as the 25th of April, putting 5 or 6 seeds in a hill. One only should be allowed to grow in a hill, and it should be kept free from weeds. The

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seedlings must not be dug in the fall, but be left in the ground and protected from frost by covering with buckwheat chaff or some other material. In the spring select and plant the largest and best of these seedlings, and by continuing this course, new and valuable varieties will be produced.

The ground about the potatoes should not be allowed to freeze. Those who have not suitable lands for keeping potatoes in the hill during the winter, will follow the directions given for keeping potatoes for spring and summer use provided they wish to increase the health and productiveness of the crop.

The above remarks are submitted for your consideration, and I hope the future will reveal the fact that they are not presented for pecuniary interests only.

December 14th, 1854.

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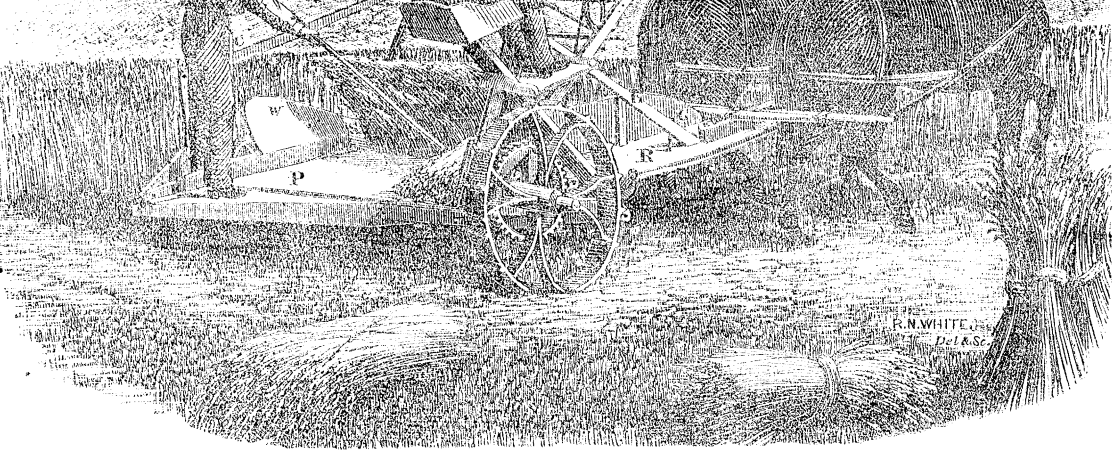
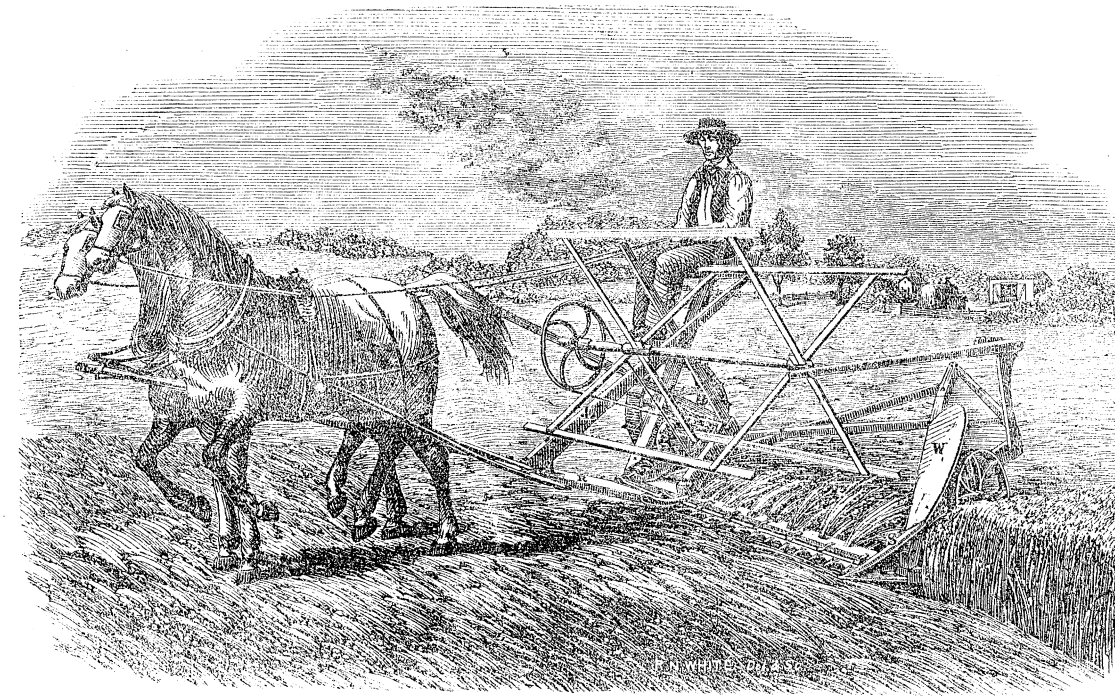
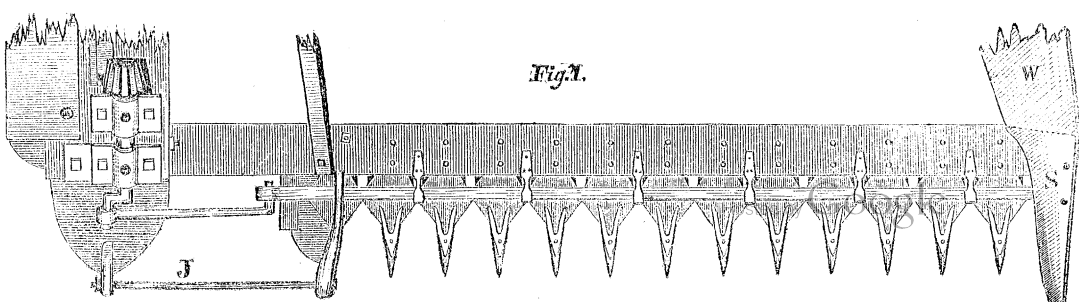


J. H. MANNY'S REAPER AND MOWER, COMBINED AS MOWING.



CUTTERS.

Fig. 1.



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REAPER AND MOWER COMBINED.

MR. J. C. HOLMES, *Secretary of the Michigan Agricultural Society:*

DEAR SIR—I would direct your attention to a few considerations, giving some of my views and experience in regard to reaping and mowing machines. The most laborious part of farming, has always consisted in the cutting of grain and grass, and much time and skill have been expended in attempts to lessen the labor and reduce the cost of this branch of husbandry, by substituting horse power for human muscle, and the reaper and mower for the scythe and sickle.

But the difficulty of constructing a machine that would work well in all places, in light and heavy crops, and leave the fields evenly and closely shorn of their summer burdens, has prevented to a considerable extent, the introduction and use of such as the inventive genius of our countrymen has produced.

For the last twenty or thirty years, considerable attention has been devoted to, and large sums of money expended for the accomplishment of so worthy and great a desideratum, and at the present time there are found to be over one hundred machines of as many different inventors, that are lying entirely useless, having been designed for either reaping or mowing, but on trial, having utterly failed to answer the purpose This fact proves most conclusively, that no machine of the kind, (however scientific it may appear in theory) can in any way be relied upon, except practically proven to be of utility, by positive application to the work for which it is intended.

Without wishing to disparage new inventions, it must be seen that there is a necessity for caution on the part of the farmer, in purchasing

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a machine on mere recommendation, that has not been thoroughly tried and clearly demonstrated to be of utility by its successful operation, during at least one season.

After having devoted a series of years myself in constant, persevering and assiduous efforts, and incurred an expenditure of some thirty thousand dollars in experimenting, in order to arrive at a proper construction for a Reaper and a Mower, and also combining the two into one machine, and making the same operate successfully and profitably, without a defect or objection, I am not surprised at the inextricable difficulties under which others are laboring to bring into successful operation their respective machines, but conclude that there are but a certain set of principles that can be embodied in a Reaping and Mowing Machine, to effect a perfect combination, so that either for reaping or mowing, the machine is every way as well adapted to the one as to the other, as though constructed separate for each purpose.

This set of principles has been secured to me by nine patents in the United States, for fourteen years from the dates thereof, after which they will become public property.

That I have produced the only successful combination of Reaper and Mower, and with capacity to excel all other single machines, I think is fully demonstrated by exhibition, operation and trials with, and in competition with all other machines in this country, during several past seasons. But still further proof is furnished, by the acknowledgements of other manufacturers. I deem it necessary to give but one reference out of many I have, and that is to C. H. McCormick, who says in an article published in the Albany Cultivator of December, 1852: "Satisfied from the experience of the past harvest, of the *impossibility* of constructing the same machine both for mowing and reaping, to the best advantage, a *separate* mowing apparatus for the next harvest, will be sold with my Reaper." After having labored to produce a combination, he is compelled to abandon the idea, and so of numerous others.

With these facts before us has not the farmer great reason to rejoice that one, even one, has been successful? In furnishing to the farmer two machines combined at about the cost of a single one, thereby saving to him the price of one, I think there are none but can *appreciate the advantage*. My combined reaper and mower has been in successful operartion for the last six years, nearly three thousand in use the past

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season, and which generally gave perfect satisfaction, and testimony of which is given by the farmers themselves. Over forty first class premiums have been received from trials and fairs throughout the country. About four thousand machines are being manufactured for the coming season, over one-half of which are already ordered. I am determined by their extensive manufacture and low price to place them within reach of every farmer. I have graduated them to different sizes, to suit the convenience and wants of all classes of farmers, from a one horse to a four horse machine.

PRICES:

For a one horse machine of about three feet cut that will cut six acres per day,.....$100 00

For a two horse machine of about five feet cut that will cut from ten to twelve acres per day,.....$135 00

For a four horse machine of about six feet cut that will cut from fifteen to twenty acres per day,.....$145 00

Yours very truly,

JOHN H. MANNY.

Rockford, Ill., Feb. 12th, 1855.

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VALUABLE STATISTICS.

We are indebted to the editors of the Detroit Free Press for the following valuable article. It was prepared by them in the spring of 1855 for the columns of that journal:

THE COMMERCE OF DETROIT IN 1854.

To gather and collate the statistics of the whole commerce of Detroit is no trifling labor. It involves going through the books, numbering a hundred in the aggregate, of the Central Railroad Company and of all the houses engaged in the business of shipping and transportation by steam and sail on the Lakes and by the Great Western Railway of Canada—the labor involves going through all these books, of classifying the freights, and of aggregating the classification when completed. Some idea may be formed of this labor when we state that the small table, hereinafter inserted, showing the tonnage of general merchandise received at the Michigan Central Railroad freight depot by steam and sail vessels, and from the Great Western Railway, and carried westward by the Central Road, employed the time of an accomplished accountant upwards of two weeks. To collect and arrange the entire statistics which we present in this article, occupied time to the extent of the labor of one man for the space of not less than three months!

We are not able to make comparisons and draw parallels between the commerce of this port for the year 1854, the period covered in the subjoined returns, with that of former years, for the reason that never before have statistics been collected and published. In future years we can make such comparisons, and they will be most interesting and serviceable—interesting as showing the advance of our commerce, and serviceable as

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exhibiting the progress in wealth and prosperity of a large portion of the State.

We have not separated receipts and shipments by the Great Western Railway from receipts and shipments by steam and sail craft on the lakes, for the reason that all merchandize received from and sent over that thoroughfare passes through the hands of the Central Road and of forwarders on this side of the river. In our next annual statement we shall exhibit the business of the Great Western Road separately, and show the relative movement of freight by it and by vessels on the lake.

Our tables are as complete as it has been possible for us to make them. They may be relied upon as correct. The showing is a most gratifying one. We now know what the commerce of Detroit is, and we shall in the future know how rapidly it increases, and in what rank our city stands as a commercial port. And these things will be known abroad, and, being known, cannot but direct attention hither, and bring to us immigration and capital—indispensable elements of greatness.

SHIPMENTS FROM THIS PORT.

The subjoined table shows the shipments from this port by steam and sail vessels, and by the Great Western Railway, during the year 1854:

Flour, bbls.,	337,143
Wheat, bush.,	897,159
Corn, bush.,	587,489
Rye, bush.,	5,395
Barley, bush.,	2,529
Oats, bush.,	228,450
Corn meal, bbls.,	1,880
Corn meal, bags,	956
Feed, bags,	2,241
Shorts, bags,	13,051
Buckwheat flour, bags,	40
Malt, bags,	318
Clover and grass seed, bags,	3,079
Clover and grass seed, bbls.,	482
Beans, bbls.,	383
Beans, bags,	228

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Peas, bbls.,	20
Potatoes, bush.,	194,537
Turnips, bush.,	1,675
Onions, bush.,	1,254
Pork, bbls.,	24,668
Fish, bbls.,	18,595
Beef, bbls.,	4,679
Tallow, bbls.,	456
Lard, bbls.,	6,209
Lard, kegs,	626
Butter, bbls.,	70
Butter, kegs and firkins,	2,299
Eggs, bbls.,	557
Cheese, boxes,	782
Cheese, casks,	38
Dried fruit, bbls.,	2,239
Dried fruit, sacks,	157
Cranberries, bbls.,	341
Green apples, bbls.,	2,394
Green apples, sacks,	73
Pickles, bbls.,	27
Sour krout, bbls.,	233
Vinegar, bbls.,	311
Beer, bbls.,	3,800
Highwines, casks,	7,980
Sugar, hhds.,	136
Sugar, bbls.,	1,193
Molasses, bbls.,	459
Tobacco, packages,	2,358
Nails, kegs,	873
Leather, rolls,	2,363
Hides, No.,	17,103
Hides and skins, bundles,	1,636
Furs, packages,	525
Oil, bbls.,	503
Ashes, casks,	1,905
Water lime, bbls.,	4,135

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Plaster, bbls.,	318
Cement, bbls.,	50
Salt, bbls.,	9,523
Salt, bags,	1,895
Crackers, bbls.,	62
Saleratus, bbls.,	65
Salts, bbls.,	117
Beeswax, lbs.,	1,000
Beeswax, casks,	8
Game, packages,	254
Game, tons,	30
Horns, packages,	154
Hair, bales,	212
Hemp, bales,	462
Ginseng, bales,	39
Broom corn, bales,	382
Fruit and ornamental trees, bundles,	569
Horse rakes, No.,	100
Stoves, No.,	305
Wheelbarrows, No.,	295
Carriages and wagons, No.,	73
Steam engines, No.,	27
Empty half barrels, No.,	982
Dressed hogs, No.,	8,483
Dressed sheep, No.,	83
Hams and shoulders, No.,	9,223
Hams and shoulders, casks,	2,330
Iron, tons,	478
Hay, tons,	240
Live hogs, No.,	15,411
Cattle, head,	7,372
Sheep, head,	3,864
Horses, No.,	22
Rags, lbs.,	559,116
Wool, lbs.,	2,367,552
Coal, lbs.,	119,396
Unspecified merchandise, tons,	14,356

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Staves, M.,	359
Shingles, M.,	4,685
Lath, pieces,	8,707,237
Lumber, feet,	19,789,021
Copper, tons,	946

SHIPMENTS WESTWARDLY.

The following table shows the amount of freight of all kinds shipped westwardly, over the Michigan Central Railroad, during the year 1854:

	Way freight.	Through freight.	Total.
Flour, bbls.,	283	----	283
Pork, bbls.,	308	2	310
Apples, bbls.,	226	7,833	8,059
Ale and beer, bbls.,	710	1,576	2,286
Highwines, bbls.,	----	133	133
Whisky, bbls.,	3,267	1,015	4,282
Salt, bbls.,	26,377	906	27,283
Wheat, bushels,	8	21	29
Corn, bushels,	313	----	313
Barley, bushels,	66	14	80
Oats, bushels,	726	----	726
Beans, bushels,	64	----	64
Buckwheat flour, lbs.,	300	----	300
Corn meal, lbs.,	365	----	365
Bran and shorts, lbs.,	530	----	530
Grass and clover seed, lbs.,	5,240	----	5,240
Dried fruit, lbs.,	22,071	266,373	288,444
Garden roots, lbs.,	2,947	316	3,263
Other agricultural products, lbs.,	6,215	49,683	55,898
Butter, lbs.,	190	521	711
Cheese, lbs.,	227,836	182,957	410,793
Beef, lbs.,	700	700	1,400
Pork in hog, lbs.,	3,822	----	3,822
Wool, lbs.,	9,910	----	9,910
Hams and bacon, lbs.,	620	----	620
Hides, lbs.,	4,525	----	4,525
Leather, lbs.,	401,434	266,571	668,005
Plaster, lbs.,	4,421,941	30,371	4,452,312

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Pelts and skins, lbs.,	7,655	7,695	15,350
Furniture and baggage, lbs.,	1,303,966	1,882,795	3,186,761
Merchandize, lbs.,	31,285,099	28,322,140	59,607,239
Mill stones, lbs.,	25,658	8,800	34,450
Pig iron, lbs.,	120,733	244,340	365,073
Iron and nails, lbs.,	3,947,889	6,873,064	10,820,953
Stoves, lbs.,	1,239,896	88,782	1,328,678
Lime, lbs.,	1,234,491	.....	1,234,491
Coal, lbs.,	4,048,003	253,910	4,301,913
Stone, sand and brick, lbs.,	110,168	.....	110,168
Lumber, feet,	2,345,747	472,558	2,818,305
Lath, lbs.,	1,576,227	.....	1,576,227
Shingles, M.,	1,961	.....	1,961
Cattle, head,	98	158	256
Horses, No.,	158	874	1,032
Sheep, No.,	1,113	2,691	3,804
Hogs, No.,	21	3	24

RECEIPTS AT THIS PORT.

The following table shows the tonnage of general merchandise received at this port, for Detroit, by steam and sail vessels, and by the Great Western Railway, during the year 1854:

	Tons.
January,	—
February,	109
March,	956
April,	3,397
May,	6,078
June,	4,785
July,	3,782
August,	3,912
September,	5,045
October,	4,789
November,	4,235
December,	145
Total,	37,233

The following table shows the amount of some of the principal articles of import at Detroit during the year 1854, and not included in the above table:

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Salt, bbls.,	99,651
Salt, bags,	86,294
Water lime, bbls.,	14,932
Stucco lime, bbls.,	60
Cement, bbls.,	300
Plaster, bbls.,	15,500
Crude plaster, tons,	336
Pig iron, tons,	1,046
Railroad iron,	744
Coal, tons,	25,153
Shingles, M.,	5,100
Lath, pieces,	2,428,950
Lumber, ft.,	10,058,488
Lumber received in log and manufactured here, feet,	35,875,846
Lath manufactured here, pieces,	14,691,900

There was also received by Edward Kanter 80 tons of hemp and 25 tons of flax, which was manufactured by him into rope and cordage. Mr. K. also received a consignment of furs direct from Russia, invoiced at $2,200 00.

There was also received by the Waterbury & Detroit Copper Smelting Company, from twenty-nine different companies in the Upper Peninsula, 1,485 tons of copper ore, which yielded 946 tons of pure copper, equal to 66 per cent.

The subjoined table shows the tonnage of general merchandise received at the Michigan Central Railroad freight depot, by steam and sail vessels, and by the Great Western Railway, and carried westward over the Central Railroad, both to Chicago and to way stations, during the year 1854:

	Tons of Through goods.	Tons of Way Freight.	Total.
January,	—	—	—
February,	—	86	86
March,	71	227	298
April,	1,788	1,175	2,963
May,	2,636	2,532	5,168
June,	635	1,494	2,129
July,	571	894	1,465
August,	1,548	792	2,340
September,	2,055	2,221	4,276

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October,	2,466	2,626	5,092
November,	2,906	1,925	4,831
December,	2,168	297	2,465
	16,814	14,269	31,113

The following table shows the tonnage of merchandise of all kinds received at this port, by steam and sail vessels, and by the Great Western Railway, during the year 1854, and re-shipped to other places:

	Tons.
January,	—
February,	115
March,	480
April,	3,044
May,	6,820
June,	3,282
July,	2,641
August,	3,051
September,	5,555
October,	7,027
November,	6,530
December,	3,031
Total tons,	41,936

The total weight of merchandise of all kinds received at this port by steam and sail vessels, and by the Great Western Railway, during the year, both for Detroit and for re-shipment to other places, was 126,781 tons.

The following table shows the amount of freight, of all kinds, received in this city by the Michigan Central Railroad, both from Chicago and from way stations, during the year 1854:

	From Chicago.	Way Stations.	Total.
Flour, bbls.,	15,027	308,624	333,651
Pork, bbls.,	10,700	18,183	28,883
Apples, bbls.,	27	1,145	1,172
Ale and beer, bbls.,	1	85	86
Highwines, bbls.,	893	5,345	7,238
Whisky, bbls.,	504	507	1,011
Wheat, bush.,	101,451	543,498	644,949
Corn, bush.,	162,817	584,448	747,265
Barley, bush.,	33,554	2,184	35,738

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Oats, bush.,	207,243	131,068	338,311
Beans, bush.,	709	2,151	2,860
Corn meal, lbs.,	28,760	284,251	313,011
Bran and shorts, lbs.,	21,690	3,162,863	3,184,553
Buckwheat flour, lbs.,	6,460	1,125	7,585
Grass and clover seed, lbs.,	479,216	64,282	543,498
Dried fruit, lbs.,	10,880	122,475	133,355
Cranberries, lbs.,	2,100	19,597	21,697
Ashes, lbs.,	6,953	269,376	276,329
Garden roots, lbs.,	1,199,009	1,215,510	2,414,519
Other agricul'l products, lbs.,	167,845	254,228	422,073
Butter, lbs.,	213,981	204,632	418,613
Cheese, lbs.,	.....	3,169	3,169
Beef, lbs.,	541,791	499,507	1,041,298
Pork, in hog, lbs.,	2,805,752	2,222,644	5,028,396
Wool, lbs.,	147,843	1,119,554	1,347,397
Hams and bacon, lbs.,	781,662	1,222,550	2,004,212
Pelts and skins, lbs.,	147,011	231,588	378,599
Hides, lbs.,	810,289	156,533	966,822
Leather, lbs.,	64,010	31,223	95,233
Merchandise, lbs.,	1,586,575	3,750,381	5,336,956
Furniture and baggage, lbs.,	47,500	244,701	292,201
Iron and nails, lbs.,	770	70,293	71,063
Pig iron, lbs.,	.....	93,088	93,088
Stoves, lbs.,	1,350	1,410	2,760
Plaster, lbs.,	.....	325	325
Lumber, feet,	.....	1,079,452	1,079,452
Sand, stone and brick, lbs.,	.....	6,050,000	6,050,000
Cattle, head,	5,842	3,875	9,717
Horses, No.,	71	96	177
Sheep, No.,	304	1,359	1,663
Hogs, No.,	14,855	4,278	19,133

SHIPPING BUSINESS OF THE MICHIGAN CENTRAL RAILROAD.

The following table shows the shipments of produce eastwardly by the Michigan Central Railroad. The items are all included in the first foregoing table of "shipments from this port," but the appended table is interesting as exhibiting the lake shipping business of the Central Company:

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TABLE SHOWING SHIPMENTS OF PRODUCE BY THE MICHIGAN CENTRAL RAILROAD, FROM THE PORT OF DETROIT, FOR THE YEAR 1854.

DESCRIPTION OF PROPERTY.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Dressed hogs, No.,	4,499	1,377									1,832	7,708
Game and poultry, packages,	61	29									61	154
Wool, bales,	59	157	39	289	236	3,085	1,427	385	395	261	717	7,050
Highwines, casks,	702	150	442	670	48	163	213	178	86	92	102	2,812
Flour, bbls.,	500	167	12,748	18,586	11,138	1,319	5,712	14,735	15,252	31,136	11,605	122,698
Seed, bbls.,	70	157	82	23				3	6	7		348
Seed, bags,	94	1,593	69	183			4	49	102	233	724	3,051
Butter, kegs,	103	129	71	114	27	11		14	36	341	495	1,341
Deer skins, bundles,	10	46	113	92	35	8	1	2	13			320
Sheep pelts, bundles,		63	19	46	16	24	9	46	39	77	113	452
Dry hides, No.,		1,809	4,264	2,197	214	230	75	152	203	486	1,114	10,744
Green hides, No.,		17	1,272	1,282						25	1,671	4,273
Furs, packages,			49	7	25	97	26		30	4		238
Cattle, head,			699	1,791	3,031	1,419	329	804	267	925		7,199
Hogs, No.,			1,203	3,621	3,845	1,243	76	907	1,944	1,122	1,350	15,411
Sheep, head,				569	860			61	800	775		3,065
Hams and shoulders, casks,			665	1,503	133						29	2,330
Hams and shoulders, bbls.,	80		985	247	14						145	1,471
Pork, bbls.,	108	3	6,002	10,567	3,241				33	50	130	20,134
Beef, bbls.,			7							1,408	451	1,866
Lard, bbls.,	88		2,858	2,699	152	10			110	50	42	6,009
Tallow, bbls.,			18	75	7	8		10	240		98	456
Eggs, bbls.,		22	96	65	3	12		4	4	6		206
Fruit, bbls.,		51	37	90	2			7	164	120		471
Broom corn, bales,		30	36	110		28				178		382
Leather, rolls,		145		71	18		22	25	4		21	306

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Barley, bags,		300	300	290	225		25	18	15			1,124
Wheat, bbls.,		100	19	2						17	2	193
Wheat, bags,		1,278	28	334	2,076	224	1,923	5,722	5,372	13,436	6,381	32,021
Wheat, bush.,								5,115	2,738	295		8,148
Corn, bush.,				9,643	8,372	26,235	5,986	41,289	44,374	12,841		148,734
Corn, bags,				53		14				50		117
Oats, bush.,									2,971	943		3,914
Oats, bags,								100	54	150		304
Shorts, bags,				30	425	1,349	1,267	1,300	3,482	4,942		12,855
Potatoes, bags,				786	865		260	32	163	168		2,274
Ashes, casks,			115	43	25	44	40	14	4	22	3	310
Hemp, bales,								63	106	138	115	462
Ginseng,								10	15	8	6	39
Rye, bags,										297	1,502	1,799

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The following shows the number of passengers carried over the Michigan Central Railroad during the years 1853 and 1854.

	1853.	1854.	Increase.
January,	11,499½	17,162	5,662½
February,	10,279½	19,047½	8,768
March,	15,360	27,544	12,184
April,	22,561½	32,443	9,881½
May,	24,507½	41,080½	16,573
June,	30,666	44,620	13,954
July,	27,514½	35,912½	8,393
August,	31,809	36,132	4,323
September,	42,724½	52,120½	9,396
October,	38,390½	64,688	26,297½
November,	28,771½	48,701	19,929½
December,	20,783½	32,238	11,454½
Total,	304,867½	451,689	146,821½

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CUSTOM HOUSE STATISTICS.

Number of American vessels employed in the coasting trade, arrived,	2,290
Number of foreign vessels arrived,	123
Number of American vessels arrived from foreign ports,	21
Total number of arrivals,	2,434
Number of departures of American vessels employed in the coasting trade,	2,384
Number of departures of foreign vessels,	146
Number of departures of American vessels for foreign ports,	24
Total number of departures,	2,554
Tonnage of American vessels employed in the coasting trade—arrived,	1,006,880

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Tonnage of foreign vessels arrived,	36,810
Tonnage of American vessels arrived from foreign ports,	4,804
Total tonnage of vessels arrived,	1,048,494
Tonnage of American vessels employed in the coasting trade—cleared,	1,200,892
Tonnage of foreign vessels—cleared,	37,786
Tonnage of American vessels cleared for foreign ports,	5,459
Total tonnage of vessels cleared,	1,244,137
Value of goods imported in American vessels,	$986,985 00
Value of goods imported in foreign vessels,	27,721 00
Total value of goods imported,	$1,014,706 00
Amount of duties on merchandise imported,	$111,838 86
Value of exports of domestic produce to foreign ports in American vessels,	118,481 00
Value of exports of domestic produce to foreign ports in foreign vessels,	79,333 00
Total value of domestic produce exported,	$197,814 00
Value of foreign goods exported,	56,135 00
Total value of exports,	$253,949 00

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SHIPPING OF THIS PORT.

The following is a list of the steamboats, propellers and sail vessels, owned in this District, and licensed at this port from January 1st, 1854, to December 31st, 1854, inclusive:

STEAMERS.

	Tons. 95ths.
Arctic,	861 42
Arrow,	373 52
Albion,	132 66

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Argo,	111	37
Buckeye State,	1274	17
Baltic,	826	37
Bay City,	479	93
Cleveland,	574	30
Detroit, (wrecked)	352	71
Dart,	297	17
Diamond,	—	—
Dispatch,	225	40
E. K. Collins, (burned,)	942	08
Forester,	503	79
Fashion,	324	32
Gen. Scott,	63	72
Huron,	348	36
Illinois,	926	06
Islander,	73	35
Julius D. Morton,	472	94
John Owen,	191	36
May Flower, (wrecked,)	1354	29
May Queen,	688	28
Minnesota,	749	45
Michigan,	643	41
Michigan, (of Grand Rapids,)	82	40
Ocean,	1052	31
Ottawa,	316	60
Plymouth Rock,	1991	13
Pacific,	462	39
Pearl,	251	30
Ruby,	251	30
R. R. Elliott,	321	29
Romeo,	160	68
Sam Ward,	433	55
Swan,	202	67
Traveller,	603	76
T. Whitney,	238	06
Traffic,	43	31

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United,	71 66
Western World,	2002 42
Total tonnage of steamers,	21,285 82

PROPELLERS.

B. F. Bruce,	168 63
Cliff Belden,	92 69
Clifton,	111 56
Delaware,	416 52
Falcon,	663 84
Fintry,	590 41
Gen. Taylor,	462 91
Globe,	343 34
Hercules,	255 75
Hamilton Morton,	144 55
John Lathrop,	45 41
Omar Pasha,	343 81
Princeton, (wrecked,)	455 73
Pilot,	77 38
Stockman,	81 45
Troy,	340 06
Total tonnage of propellers,	4,564 59

BARQUES.

Emily Roelofson,	385 23
E. B. Morgan,	310 62
Fame,	428 35
Nucleus,	329 00
Total tonnage of barques,	1,453 25

BRIGS.

Caroline,	257 82
Cortland,	234 76
Columbia,	176 80
James McBride,	271 85
John H. Harmon,	301 78
Mechanic,	312 26

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Orleans,	173 55
Portland,	250 13
Pilgrim,	243 19
Roscius,	318 28
Shakespeare,	264 65
Total tonnage of brigs,	2,804 37

SCHOONERS.

Abigail,	178 18
Ainwick,	122 35
Atlas,	102 75
Antelope,	89 60
Addain,	35 90
Alvin Clark,	218 35
Ariel,	45 44
Avenger,	77 75
Argo,	263 49
Anna,	48 39
Banner,	62 92
Crevola,	212 82
Cadet,	72 07
Cerro Gordo,	58 10
California,	72 91
Convoy,	236 66
Commencement,	87 52
Cygnet,	95 75
Caledonia,	82 10
Deer,	48 87
Dial,	161 30
Dolphin,	31 15
Experiment,	51 81
Erie,	71 49
Enterprise,	56 35
Ellen,	61 31
Empire,	40 53
Elmira,	144 36
Eugenia,	30 00

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Euphemia, ... 51 71
Fletcher E., ... 81 24
Fortune, ... 371 80
Free Democrat, ... 54 08
Franklin Moore, ... 35 18
Fidelity, ... 64 68
Fair Trader, ... 37 21
Flying Eagle, ... 27 60
George C. Drew, ... 130 57
G. Ellen, ... 71 41
Granger, ... 62 78
Grey Hound, ... 28 57
George Davis, ... 238 46
Harwich, ... 73 57
Helen Kent, ... 142 14
Henry S. Hyde, ... 57 49
Hercules, ... 120 19
Henry W. King, ... 99 20
H. H. Day, ... 50 45
Heligoland, ... 108 84
Ino, ... 138 05
Industry, ... 61 71
Industry, (of St. Jo.,) 43 88
John A. Saunders, ... 46 54
Jane Louisa, ... 131 35
Julia Smith, ... 94 82
Jenny, ... 55 48
James McKay, ... 125 36
J. H. Lyon, ... 119 38
John Woods, ... 26 79
Kansas, ... 106 71
Kit Carson, ... 53 35
King Fisher, ... 14 93
L. M. Mason, ... 340 35
Leander, ... 145 09
Lizzie Throop, ... 123 63
Lapwing, ... 16 54

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Mary Kay,.....30 43
Mary King,.....30 43
Mary Williams,.....88 52
Morning Star,.....21 09
Mary,.....212 18
Mount Vernon,.....225 80
Mystery,.....26 66
Meteor,.....32 03
Mink,.....25 91
Maine Law,.....35 57
M. Porter,.....22 61
Marcellus,.....47 49
May Breeze,.....65 16
Magic,.....143 07
Marengo,.....129 30
Macomb,.....42 38
Marshal Ney,.....69 73
Michigan Flower,.....45 93
Meridian,.....99 88
Montezuma,.....52 27
Mike,.....15 35
New-Hampshire,.....99 31
Niagara,.....152 10
Navigator,.....108 65
Nile,.....250 53
Ocean,.....120 32
O. Q. Melzan,.....137 26
Odd Fellow,.....275 44
Orion,.....111 86
Pontiac,.....75 70
Pilot,.....32 90
Presque Isle,.....33 48
Phantom,.....25 02
Pike,.....30 20
Pioneer,.....88 76
Palo Alto,.....202 74
Rockaway,.....53 26

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St. Clair,	35 14
Sacramento,	115 93
Spray,	101 61
Sparrow,	44 50
Star,	55 84
Saranac,	38 18
St. Joseph,	70 75
Telegraph,	60 69
Trenton,	130 11
Temperance,	42 00
T. G. Scott,	93 36
T. Lemon,	124 78
Telegraph, (of Grand Rapids,)	102 00
Vincennes,	185 30
White Pigeon,	35 36
Warren,	113 58
Windham,	236 80
W. Foster,	31 12
White Cloud,	317 68
William Tell,	97 72
Weasel,	41 71
White Squall,	318 15
Total tonnage of schooners,	12,137 18

SCOWS.

Augustin,	56 42
Coaster,	65 49
D. R. Holt,	81 67
De Witt Clinton,	66 45
Dover,	20 00
Dan Tucker,	38 38
Ellen,	35 20
Foam,	26 87
Flying Cloud,	25 63
Jonathan Burch,	13 61
Louis Napoleon,	21 66
Milwaukee,	32 45

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Margaret,	21 78
Pauline,	17 78
Red Rose,	24 10
Storm,	58 07
Swallow,	35 14
Scud,	32 37
Virago,	111 69
Total tonnage of scows,	785 21

SLOOPS.

Agate,	22 05
Argus,	20 88
Belle,	20 42
Bertrand,	22 80
Betsey,	29 83
Blue Bird,	12 73
Emma,	42 93
Eagle,	25 28
Elizabeth,	16 51
Eagle,	16 83
Enterprise,	16 75
Emily,	12 66
Fair Trader,	22 25
Francis,	31 57
Fancy,	6 72
Gull,	22 22
Globe,	15 33
Henry Young,	29 30
Hunter,	18 58
Isaac Russ,	42 70
Independence,	23 16
June Flower,	7 08
Loom,	12 86
Lady,	15 13
Louise,	9 38
Look and See,	9 15
Lion,	36 31

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M. C. Bronson,	23 09
Matilda,	35 85
Napoleon,	20 36
Nicholas,	14 40
Post Boy,	19 15
Peter Campau,	14 07
Rambler,	30 13
Ruffian,	11 79
St. Louis,	31 59
Sailor Bride,	28 26
Swan,	31 35
St. Mary,	26 40
Star,	28 58
Sun,	16 19
Sweeper,	18 62
Superior,	16 38
Texas,	26 86
Temperance,	9 20
Victory,	27 47
Total tonnage of sloops,	992 24

RECAPITULATION.

	Number.	Tons.	95ths
Steamboats,	41	21,285	82
Propellers,	16	4,564	59
Barques,	4	1,453	25
Brigs,	11	2,804	37
Schooners,	126	12,137	18
Scows,	19	785	21
Sloops,	46	992	24
Total,	263	44,022	76

The above statistics exhibit the extent of the flour and grain export trade of this city, and show the surplus product of the country immediately tributary to Detroit as a market and shipping port.

Barrels of flour shipped,	337,143
" " received from Chicago,	15,127
Surplus exported, bbls.,	322,016

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Bushels of wheat shipped,	897,159
" " " received from Chicago,	101,451
Surplus exported, bushels,	795,708
Bushels of corn shipped,	587,489
" " " received from Chicago,	162,817
Surplus exported, bushels,	424,672
Bushels of oats shipped,	228,450
" " " received from Chicago,	207,243
Surplus exported, bushels,	21,207
Bushels of rye shipped,	5,395

These are the principal flour and grain exports: Of barley there was received from Chicago 33,554 bushels, and from the interior of this State by the Central Railroad 2,184 bushels, while there was shipped only 2,529 bushels, showing the consumption of this city to have been 33,209 bushels, without taking into account the receipts by the Pontiac Railroad and by wagons, which would double the probable amount consumed. Of oats there was received from Chicago 207,243 bushels, and from the interior of this State by the Central Railroad 131,068 bushels, making in the aggregate 338,311 bushels, while there was shipped only 228,450 bushels, leaving the consumption of this city 109,861 bushels, without taking into account the receipts from the other sources above mentioned. Of corn there was received from Chicago 162,817 bushels, and from the interior of this State by the Central Railroad 584,448 bushels, making an aggregate of 747,265 bushels, while there was exported only 587,489 bushels, leaving the consumption of this city 159,776 bushels, without taking into account the receipts from the other sources above mentioned. There was, besides, 313,011 lbs. corn meal received by the Central Railroad, and only 1,880 lbs. and 956 bbls. exported.

Of the value of the exports of flour and grain we can arrive at very definite results. The average price of flour during the year was, say, $7,50; of wheat $1,50; of corn 60 cents; of oats 35 cents. Thus:

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337,143	bbls.	flour, at	$7,50	$2,528,572
897,159	bush.	wheat "	1,50	1,345,738
587,489	"	corn "	60	352,593
228,450	"	oats "	35	79,957
		Total,		$4,306,860

An aggregate of four millions three hundred thousand dollars for the export of flour, wheat, corn and oats from this port.

Some of the other principal exports were:

Fish,	18,595 barrels.
Pork,	24,268 "
Live hogs,	15,411 head.
Cattle,	7,372 "
Sheep,	3,364 "
Wool,	2,367,552 pounds.
Lumber,	19,789,621 M.
Potatoes,	194,537 bushels.

These statistics will be very interesting in future years when they can be used to make comparisons.

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WATER WORKS.

OFFICE OF WATER WORKS,
Detroit, State of Michigan, May 19, 1855.

The Board of Water Commissioners having received numerous applications for information relative to the pecuniary condition, resources and prospects of the city of Detroit, have thought proper to prepare the following condensed statement, as embodying the information required:

The soil upon which the city is built being mostly impermeable clay, the water procured by sinking wells is, with occasional and few exceptions, surface, and not spring water, and contains a large per cent. of organic matter, greatly increased in the neighborhood of drains and sewers, and which therefore constitutes a serious objection to its use. Its analysis showed that it contained 116 grains of compound ingredients to a gallon, while a gallon of water taken from these works exhibited but about 5 grains: the compound of the river water being composed mostly of silica, alumnia, and iron, elements that can produce little or no injury; while the solid matter of the well water contained a large quantity of chloride of sodium, chloride of potassium, and magnesium, the two latter being cathartic in their properties. The analysis also shows that the water of the river, drawn from the great northern lakes, and from which the works are supplied, is found as pure and free from mineral substance as almost any body of water in the world.

In 1836 the city purchased the works, which had been established by individual enterprise ten years before, and expended upon them about $120,000. In 1852, at which time they had cost the city the sum of $266,000 over and above all receipts, they were placed under the management of a Board of Trustees, who were subsequently by act

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of the legislature incorporated as a Board of Commissioners. Up to the 1st of January last the Commissioners had expended, in reconstructing and enlarging the works, the sum of $271,000. The amount of their ordinary receipts over ordinary expenses was $41,600—making the amount expended for construction over receipts $229,400, which added to the amount before expended by the Common Council, shows the total cost of the works to January 1st, 1855, to be $495,400.

In 1838, when the works were first regularly conducted by the city, the assessments amounted to $3,676, and the number of assessments to 613. In 1845 the assessments were $9,488, and the number was 1,251. In 1854 the assessments were $31,840, and the number was 5,872. The assessment of 1854 exceeded that of the previous year by more than $3,000, and the increase of the present year will probably be still greater, while there is no doubt that this ratio of increase will continue for many years, on the lines alone of pipes now laid. There are now 27 miles of iron and about 14 miles of wooden pipes. It would be a low figure to estimate the amount of assessment from the pipes now laid at $50,000 annually, when the lines are filled by buildings—an event, at the present rate of construction, not far off. The extension of pipes will at the same time be required in new districts, which are fast being settled. There are now at least one thousand families living beyond the reach of water from these works, who procure but a scanty supply from wells.

The liabilities incurred by the Board of Commissioners, for the annual interest and ultimate payment of which they are to provide, is $250,000. The receipts for the past year for water amounted to a sum sufficient to pay the interest and ordinary expenses, leaving a small surplus.

The population of the city having doubled in the last four years, and the receipts for water nearly so, it would be safe to estimate that the population and receipts for water will double in the next five years. So that by the time the loan of $250,000 now contemplated is expended in extending the works, the revenue from the water would not only pay the annual interest and ordinary expenses, but leave a large surplus annually to go into a sinking fund pledged to the extinguishment of the debt.

The holders of the water works' bonds have not only the city for se-

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curity, but, cumulatively, they have a revenue always sufficient to meet the interest, derived from the works themselves. For the water rates are not fixed by any law, but are graduated to meet the requirements properly belonging to them. And the whole loan itself, by the manner and object of its application, increases to its own extent, and represents to this extent its own security.

The city liabilities are: Bonds due in 1855, $53,608; in 1857, $20,000; in 1858, $50,000; in 1859, $60,000; in 1865, $50,000; in 1869, $10,919; in 1870, $27,925; in 1871, $19,320; in 1872, $400; in 1873, $22,000; optional, $3,450; total, $317,622. These were issued for construction of the original Water Works, Public Sewers, City Hall, Markets, &c., &c., the payment whereof is provided for by the Common Council, and the interest on which is paid by direct annual tax.

By a law of the Legislature of the State, no further bonds for purposes of city improvements can issue from the Common Council, but all improvements thereafter to be made must be provided for and paid by direct tax at the time of construction.

The law also requires a stated sum to be annually raised by tax, to go into a sinking fund pledged to the extinguishment of the public debt. Since the passage of the law the sum of $35,199 38 has been placed to the credit of the public debt. This fund is computed to extinguish the above debt in seventeen years.

The population of the city proper returned in the spring of 1854, as taken by authority of the State, was 40,373. A population of 3,000 reside in contiguous city suburbs, which for all business estimates should properly be taken into the account. The area of the corporate limits is 3,368 acres of land, about one-third of which is closely covered by buildings. These limits will probably be enlarged on the river front in each direction at the next meeting of the legislature.

The population at the following periods, from 1820, was as follows:

In 1820 it was			1,442					
" 1830	"	"	2,222	—Increase in	10	years,		780
" 1840	"	"	9,102	— "	"	"	"	6,880
" 1850	"	"	21,019	— "	"	"	"	11,917
" 1854	"	"	40,373	— "	"	4	"	19,354

It will be seen that the population has doubled in the four years pre-

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ceding 1854, and the water assessment now being made shows that the ratio of increase has not diminished during the past year. The assessor has found in one ward, 149 families residing in it more than were there a year ago.

The valuation of real and personal property assessed in the city in 1854 was	$12,518,115
Add for difference between valuation for purposes of taxing or of traffic,	4,172,705
Add for real and personal property of railroads, banks, &c., which pay a tax in gross to the State of one per cent. on their capital,	3,500,000
Add for church property not taxed,	1,000,000
Public property not taxed, water works, engine houses, markets, public schools, &c., &c.,	500,000
County and General Government buildings,	100,000
	$21,790,820

The following business statistics were returned with the census in the spring of 1854:

The capital invested in manufactures within the city proper in 1854 was	$1,680,150
The products of the preceding year from manufactures were	$2,013,200
The value of merchandise imported in 1853 for the purpose of sale was	$7,422,700

The Water Assessment returns for 1854 shewed there were in the city 5753 families, 348 stores, 50 taverns, 234 groceries, 166 offices, 264 mechanic shops, 11 iron machine shops, 6 iron foundries, 4 steam boiler manufactories, 7 brass foundries, 1 locomotive manufactory, 13 furniture, door, blind and sash steam manufactories, 7 steam saw mills, 1 steam flour mill, 1 steam coffee and spice mill, 1 steam plaster mill, 6 steam tobacco manufactories, 9 printing offices, 10 tanneries and morocco factories, 1 glue factory, 1 burr millstone factory, 4 soda and small beer factories, 13 soap and candle factories and asheries, 2 railroad depots, 14 livery stables, 17 breweries, 1 gas works, 1 water works, 3 dye houses, 6 public halls, 27 churches, 5 banks, 6 stone and marble works, 22 forwarding houses, 2 theatres, 1 jail, 2 orphan's homes, 1 hospital, 26 public schools, 21 private schools, 9 fire engine houses, 24 meat markets, 2

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wheat elevators, 120 boarding houses, 49 stationary steam engines. The foregoing are within the corporate limits, while within half a mile out side, there are 500 families, several saw mills, tanneries, breweries, a copper smelting works, dry docks, &c., &c.; all of which are to be taken into account when estimating the business, &c., of the city.

The disbursements for improvements and public purposes made in 1853 and '4, were (excluding fractions) as follows:

City expenditures in '53 for interest, sewers, &c.,	$127,267	
" " '54 " " " "	119,042	
" " '53 " " public schools,	9,586	
" " '54 " " " "	10,264	
State and county tax paid by city in 1853 and '4,	52,918	
Amount raised by general tax,	$310,077	$310,077
Amount paid by special assessments in 1853 for paving streets,	$61,710	
Amount paid by special assessments in 1854 for paving streets,	67,311	129,021
Amount expended by Water Commissioners for reconstructing water works and contingencies in 1853,	122,587	
Amount expended for same purpose in 1854,	190,271	312,858
City disbursements in two years,		$751,956
Amount expended by Detroit Gas Light Company enlarging and extending their works during same time,		100,000
Amount expended in erecting houses of public worship during the same time, as follows:		
Stone Presbyterian Church cost	60,000	
Brick " " "	50,000	
Brick " " "	40,000	
Brick Congregational " "	50,000	200,000
		$1,051,956
Amount of water loan,		250,000
Amount drawn directly from resources of citizens		$801,956

Add for amount paid on subscriptions to stock of railroads,

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plank roads and other public improvements for same time, ... 200,000

Showing amount actually disbursed in the city from its own resources, for public purposes, to be $1,001,956

The population of the city in 1854 is stated in the returns at 40,373.

A portion of the population are foreigners, many of whom are uneducated, and many do not speak English at all. They regarded the operation of the census as a preparatory process to tax them according to their numeration, and it is now known that the census taken was quite below the true number. A full census of the city and suburb population, which are substantially one, would show a population of from 47,000 to 50,000 souls.

The amounts expended annually for paving streets, and other public improvements, thus enhancing greatly the value of property, are large, but not more than is demanded by the rapid growth of the city. A public meeting just held, convened by Mayor's proclamation, voted to raise by tax the sum of $163,000 for public improvements the present year. This is in addition to the cost of paving, which will be at least half as much more, and is paid by special assessment.

All this does not, nor can it, add one dollar to the city debt. When sewers are to be constructed, public buildings erected, or any improvement to be made, the absolute and immediate payment of the whole expense must first be provided for, before any contract is let for the work or any liability is incurred.

We have three railroads terminating here, (the Great Western being substantially one,) numerous manufactories, a population of about 50,000, an improved city, a vast number of prosperous mechanics, mostly owning their own shops and houses, a magnificent river, never swollen by floods or shallowed by drouth, with a front of miles for wharfage and anchorage everywhere.

The country around and tributary to the city is growing and improving not less rapidly, and the site and location of the town is admirably adapted to commercial and mechanical business of every kind and on a large scale.

The Sault St. Marie Canal, just completed, opens up to us a hitherto obstructed prospect, and secures a large and valuable trade with the im-

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mense wealth and enterprise of the upper portion of the State. The region of Lake Superior, the largest body of fresh water in the world, abounds in mineral wealth. The copper and iron found there is superior in quality, and the quantity inexhaustible. The advantages of the trade of this district to Detroit is apparent.

The Detroit and Milwaukee Railroad, partially completed and rapidly prosecuted, passes through the northern tier of counties of the lower peninsula. They are the richest portions of the State, abounding in lumber, plaster, coal, and other valuable elements of wealth. They are some of the very best agricultural lands in the State, and yet the least developed, for want of a railway or other available communication commensurate to their business requirements. This road will soon supply their great deficiency and pour their products and that of the valley of the Grand river to this point which is their natural depot and market.

A railroad connecting us with the southern tier of counties, from which we have hitherto been excluded, will probably soon connect us with the Ohio roads leading to Cincinnati and beyond. The Logansport and St. Louis Road, passing through the Wabash and Eel river valleys, is now being constructed to within fifteen miles of the southern line of this State, and will inevitably extend itself to this city. The distance from New York to St. Louis by this route will be about eighty miles shorter than by any other.

By order of the Board of Water Commissioners,

ROBT. E. ROBERTS,

Secretary.

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GEOLOGICAL SURVEY.

A large amount of money has been expended in procuring a Geological Survey of the State, but the immense amount of labor performed, and information collected by the State Geologist and his assistants, has thus far, for want of suitable publicity being given to it, been of but little value to the agricultural community.

The geological survey of the State was commenced in 1838, continued through several years and ended, not because of its completion, but because of the death of the accomplished State Geologist, the lamented Houghton.

The geological survey, while it remains unpublished, can be of but little, if any, utility to the State. The more the people give their attention to scientific agriculture, the more they see and feel the want of a knowledge of the geology and topography of the State; therefore, in the fifth volume of transactions we published that portion of the survey which was reported by Bela Hubbard, Esq., Assistant Geologist. We now continue the subject by publishing the reports of C. C. Douglass, Esq., also an Assistant Geologist.

—

REPORT of C. C. Douglass, Assistant Geologist; to Douglass Houghton, State Geologist.

SIR—I have completed the detailed survey of so much of the district which you assigned me, as is embraced in Ingham county, together with a portion of Eaton and Jackson counties. Much time having been occupied in tracing and examining the coal formation, in order to

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arrive at satisfactory conclusions as to the probable extent of its valuable deposite in the district, it is thought advisable to defer the report of a part of Eaton and the whole of Jackson county, until the work shall have been more nearly completed. The examinations of the coal district resulted in the collection of many important facts, some of which cannot be properly made use of until more extended examinations have been made. But it may be observed, that these have been sufficiently satisfactory to place beyond doubt the existence of this valuable substance in sufficient quantity to be of much prospective value to the State.

The maps of the counties under consideration, have been found to be exceedingly incorrect, and in accordance with your instructions, I have been able to accomplish much towards correcting the numerous geographical errors upon the maps now being constructed. These, according to your instructions, having been transferred to the topographical department, can only be generally noticed in this report.

One of the most prominent characters of the county under consideration, when compared with the more southern counties, is, its remarkable uniformity of surface. Although the whole country may be considered as gently undulating, it has no great irregularity of surface, except in those sections traversed by streams, where gorges, frequently of considerable depth, are sometimes found.

Occasionally some few isolated hills and ridges are seen, but they, with a few exceptions, are hardly worthy of notice. In township three north, range one east, a series of isolated ridges commences on section thirty-four, and extends in a northeast direction, across sections thirteen, twenty-three, twenty-four, twenty-six and twenty-seven, having an altitude of from twenty to eighty feet.

A second and nearly parallel elevation was noticed, commencing on section three, in the same township, and extending to section thirty-four, in the adjoining town, having an elevation varying from twenty to forty feet.

A third commences in the south part of Vevay, and extends in a northwest direction, nearly through the town, varying from ten to eighty feet in height. At the village of Mason, the Sycamore creek passes through a ridge of diluvion composed of stratified coarse sand and pebbles, slightly united by a calcareous and ferruginous cement.

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About three-fifths of the county of Ingham consists of timbered land, while the remaining two-fifths are oak openings and plains. That portion of Eaton county embraced in this report, consists of timbered lands.

TIMBER.

The timber upon the less elevated bottom lands extending along Grand River consists of sycamore, black ash, elm, black walnut, &c. Upon the inclined uplands, connecting the bottom with the table lands a general mixture of the usual hard wood timber is found.

The table lands are mostly timbered with the varieties of oak, beech, maple, lynn, hickory, cherry and whitewood; with sycamore, butternut, black walnut and elm on the margins of the streams.

Ingham county occupies a very central position in the State, and possessing as it does a rich soil, valuable quarries of sand stone and extensive deposites of bituminous coal, it promises to become one of the most important counties in the State.

SOIL.

The prevailing soil of Ingham county and that part of Eaton county lying in township four north, ranges three, four, five and six west, is sandy loam and loamy sand over an extent of more than seven-eighths of the surface. Limited tracts of a stiff loamy clay, with occasional hillocks and ridges of fine yellowish sand, occur, and were observed more especially near the small lakes and streams.

Beds of sand and gravel are sometimes seen to alternate with those of loam and marly clay in such a manner that a field of a few acres may exhibit almost every variety of soil from a fine sand to a stiff marly clay.

The art of the farmer may be here put in requisition to modify the natural texture of the different soil and fit them to receive nutritive and stimulant manures with the greatest advantage. The stiff heavy clays may be dressed with sand, and the light soil with loam or clay, (marly where it can be obtained,) with a view to transform the whole into a loam of such a texture as to make a pulverulent soil, and yet leave it sufficiently argillaceous to retain a desirable quantity of water. Yard manure, composts mixed with lime, ashes, and muck of the marshes and swamps, if thrown into heaps with quick lime and allowed to undergo

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a more perfect decomposition, would make a valuable manure for the light soils. Lime is essential to the fertility of the light soils, and as shell marl is within the reach of nearly every farmer, it being found in many of the lakes and marshes, no reason can exist why these light soils may not be made and retained of the most fertile character. The marl may be taken from the pit in the fall and winter, or at any leisure season, and spread over the land in the same manner as fine yard manure. Experience must determine the quantity best adapted to each particular soil.

The marly clays of Ingham and Eaton counties may be employed with advantage on the light soils, for they will not only add consistency to the soil, but will also furnish the necessary lime.

MARSHES AND SWAMPS.

Many extensive marshes exist in both Ingham and Eaton counties, and probably may be said to extend over an area of about one-ninth of the surface. Many of these marshes have originated from the stoppage of water in the streams, having been dammed by the beaver which formerly existed in the country in great numbers.

Two marshes of this character commence near the south line of township two north, range one east. That on the west of the township, extends in a northeast direction nearly to the corner of town three, having a length of twelve miles and an average width of eighty rods.

The one on the east extends north two or three miles into the adjoining township, having a length of seven miles and an average width of half a mile.

A vegetable deposite of from one to eight or nine feet thick, frequently tremulous when wet, occurs in many of these marshes. This deposite is mostly underlayed by marly clay which is sometimes covered to a slight depth with sand and gravel, and in some instances with shell and tufacious marls. This vegetable matter being imperfectly decomposed, forms a light fibrous peat.

A large majority of these marshes can be readily drained, and will, by proper culture, become fertile meadows or even arable lands. Many of them when filled with water are tremulous. Most of the swamps and marshes are covered with a luxuriant growth of sedge, tamarack and cranberry vines.

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SPRINGS AND WELLS.

Most of the springs and wells in these counties furnish water containing the salts of lime, and constitute what is termed hard water. The country is generally well watered, though during the past season, owing to the drought, some portions were nearly destitute. Along the valleys of the streams and through the whole extent of the sandstone formation, water is abundant, rising to the surface in springs and collecting in the low grounds, forming numerous small streams.

In the township of Onondaga the sand rock occurs at various depths, and water is generally obtained at the surface of the rock or by penetrating it a few feet. Many of the springs contain large quantities of carbonate of lime in solution, which, as the water comes in contact with the air, is deposited in the form of tufa or a fine pulverulent marl. When the quantity is small, the porous vesicular deposite, called tufa, is found, but when the water is abundant, or the springs rise in a level tract or swamp, it is deposited in the shape of marl.

The most copious springs of this kind are along Grand and Cedar rivers. Nearly all the small streams, as well as most of the lakes and marshes (which do not originate from beaver dams) have their origin in springs.

The water of most of the springs noticed, aside from the lime it contains, is remarkably pure and limpid, but occasionally chalybeate springs occur. The springs last mentioned not unfrequently give rise to very limited beds of bog iron ore.

STREAMS.

Grand and Cedar rivers are the two principal streams in Ingham county; the first watering only a small portion of the western townships, while the Cedar, entering on the east, completely traverses the county.

There are, besides these, numerous small streams varying from a few links to sixty links in width.

Among the largest of these are the Sycamore, Willow, Mud and Deer creeks, and the east branch of the Cedar river.

It will be noticed by reference to the map, that all the streams have a bearing to the north, excepting the few north of the Cedar river.

These streams furnish the country with a tolerable supply of hydraulic power.

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MARL.

An extensive deposit of shell marl was noticed on section fifteen, township one north, range one west; occuring near the source of a small stream. It is chiefly in the state of a compact and beautifully white powder, containg an abundance of recent shells. The stream before noticed passes through an extensive marsh, much of which is underlaid by the marl, covered with peat and vegetable muck, of from two to six or eight feet thickness.

Marl also occurs in a basin shaped hollow, on section thirty-three, in the town of Leslie.

I was informed by Mr. Woodworth, that an extensive bed of marl occurs on section thirty-five, township two north, range one west.

Calcareous tufa was noticed at several places in the counties, but not in sufficient quantity to be of any practical value.

BOG IRON.

Several deposites of bog iron were noticed in Ingham county, which, however, are not of sufficient extent to be of any practical value. These were in most cases noticed along the streams, outlets of marshes, and in connection with chalybeate springs.

The most extensive deposite observed in Ingham county, was on section eighteen, township three north, range two east, in the bank of a small stream. It consists of coarse and fine grains, forming masses in the soil, which is of a sandy loam.

A deposite of an argillaceous ochre, was noticed on section twenty-two, in the town of Leslie, covering an area of four square rods, and from a few inches to three feet thick. It is very unctuous, containing but a small proportion of sand and gravel. Mr. Woodworth informed me that he had made use of it as paint, and found it to answer a good purpose.

On section eleven, in the town of Stockbridge, was noticed a deposite several rods in extent, and from a few inches to one foot in thickness, varying from a deep to a light red color, unctuous, and containing sand and gravel in small quantities.

Another deposite was noticed at the outlet of a marsh, in the southwest corner of Onondaga.

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CRAG.

On section three, township four north, range three west, in the bank of Grand River, sand, cemented with calcareous matter, occurs, and has been mistaken by the inhabitants for a ledge of sandstone. It has an elevation of fifteen feet, but is not extensive. It is covered with a light colored clay soil. The sand from which the crag is formed is considerably extensive, and will afford a good sand for mortar.

BOULDERS.

Primary boulders were noticed at numerous points in these counties, particularly along the streams, where they occur in great numbers.

Boulders occur more frequently upon the surface of the plains than on the timbered lands. They are not unfrequently seen in great numbers upon the summits of the most elevated hillocks and ridges.

On section thirty-one, township four north, range two east, several small angular boulders of light colored limestone, containing fossils, were seen.

CLAY.

Blue and variegated clays, inferior in quality, are not unfrequently met with in Ingham and Eaton counties. A variegated marly clay, of fine texture, was observed on the west side of Pine lake, and will afford an excellent manure for the light neighboring soils.

An analysis of two hundred grains of this clay gave the following results:

Carb. lime,	66,00 grs.
Alumine,	120,00
Silex.	14,00
	200,00

This bed of clay has been found to be twelve feet thick at a well on the west side of Pine lake, and to repose on fine sand.

Clay was again noticed on section thirteen, township four north, range two west and two east, in the banks of the Cedar river. This clay contains only a small portion of lime, is free from gravel, and will afford a tolerable material for brick.

Blue clay, containing gravel and pebbles, occurs at intervals along the banks of Grand and Cedar rivers.

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Clay suitable for brick was observed in the town of Leslie, near the village of Leslie. In the town of Stockbridge, on section eleven, clay that will afford a good material for brick was also noticed.

BUILDING AND FLAGGING STONE.

The great sand rock formation embraces the only rock found in place in Ingham and the north and east parts of Eaton counties. It is exposed at many points along the Grand and Cedar rivers, forming in some cases perpendicular cliffs. It is also seen at a distance from the river, in the beds and banks of the small streams. At many points in the county the rock is found covered by only a slight depth of soil, and it may reasonably be supposed that as the settlement of the county advances, the rock will be found to approach sufficiently near the surface for quarrying, at many points where it is now wholly unperceived.

Southwest from the mouth of the Cedar River, on section nineteen, a compact, grey, calcareous sandstone occurs in the bed and banks of Grand River.

An analysis of this sandstone showed it to be composed of

Silicious sand and mica,	60,00 grs.
Calcareous matter,	40,00
	100,00

Embraced in this micaceous sandstone, is a compact, white, quartzose sandstone cemented with lime. Both these varieties of sandstone will afford a valuable material for building. The upper portion of the calcareous sandstone is composed of thin layers, which would answer a valuable purpose as a flagging stone.

In the southwest part of township three north, range two west, a sandstone well adapted for building purposes was noticed in the bed and bank of Grand River. It is regularly stratified, the layers being from two inches to twelve inches in thickness. It may be quarried in blocks of several feet superficial extent. It contains numerous remains of extinct plants. This rock is analogous to the calcareous sandstone near the mouth of Cedar River.

In the town of Onondaga, Ingham county, on sections seven, twenty-eight, and twenty-nine, a coarse quartzose, micaceous sandstone was examined, some portion of which will afford a good building material.

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On section thirty-six, township four north, range two east, in the bed and banks of the Cedar River, a white, coarse grained, micaceous sandstone occurs. It is friable when first taken from the quarry, but hardens upon exposure to the atmosphere.

This outcropping edge of sandstone embraces a bed of bituminous shale and coal.

An outcrop of the sandstone was examined in the bank of Deer creek, near the surveyed line of the canal, on section fourteen, township three north, range one east, Ingham county. This sandstone resembles, in appearance, the calcareous sandstone at the mouth of the Cedar river, is very much shattered, and some of the blocks have nearly a vertical position.

Sandstone was again noticed on section twenty-two, town of Leslie, and is apparently well adapted to economical uses. It resembles in texture the sandstone at Napoleon.

Sandstone of a friable nature was noticed on sections sixteen, twenty and twenty one, in the town of Vevay, from one to two miles south of Mason. The quality of the stone cannot be well known until excavations are made.

Sandstone also occurs on Grand river, Grindstone and Coal creeks, in Eaton county, in mural walls of from ten to forty feet in height, and extends along each of these creeks for the distance of a mile, and along Grand river for a distance of from one and a half to two miles. These sandstones embrace a succession of coal fissile shale and iron ore. They also contain many remains of plants.

Some portions of the sandstone will afford a good material for building, as also for grindstones.

On section twelve, in the same township, forming the bed of Grand river and occasioning a strong rapid, is a fine grained sandstone cemented with lime, and characterized by the appearance of numerous vegetable impressions.

A good material for building and grindstones, and embracing a bed of bituminous shale, was noticed in the bed and banks of Grand river, on section twelve, town one north, range three west, Eaton county, and section seven, town one north, range two west, Ingham county. It extends north along the valley of the Grand river into the adjoining town-

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ship. It is here overlayed by a thin bed of coarse red sandstone that has an irregular dip of about four inches to the foot.

COAL.

The whole rock formation of Ingham and Eaton counties may be referred to the coal bearing series, and several beds of this material, which may be looked upon as valuable, have been examined. The level and unbroken character of the country which brings the rocks but rarely to the surface, together with the disintegrating nature of the rock, (the latter serving to cover those edges, which under other circumstances, would be exposed,) render it difficult to follow these beds in a continuous manner, but no doubt can be entertained but they exist over a large area of the counties.

The most extensive beds of coal were noticed in township four north, ranges one and two east, in Ingham county, and ranges three and four west, in Eaton county.

Coal also occurs in the valley of Coal and Grindstone Creeks, and on sections three, ten and eleven, on Coal Creek. The coal is here comprised in four beds, having a thickness of four, ten, twelve and twenty inches, and neither bed exceeds two feet at any one point.

It was examined at several places along the table lands, and in the bed of the stream, for a distance of one and a half miles, where, in consequence of its dip, I was unable to trace it further.

The coal is embraced in a succession of fissile shales, and compact and friable sandstone, varying in thickness, from five to forty feet. I was enabled to remove several bushels from the different localities, that proved to be highly bituminous, and of very good quality, though occasional pieces were observed slightly contaminated with iron pyrites. It ignites easily, burns with a light flame, and leaves only a small quantity of earthy residuum.

The coal on Grindstone Creek is a continuation of the coal on Coal Creek, and was traced in the immediate vicinity of Grindstone Creek, across the eastern parts of sections three, ten and eleven, where a part of the coal had but a thin covering of soil, making a distance along the stream of one and a half or two miles. The coal here consists of a single bed, having an average thickness of eighteen inches, and at no one point exceeding two feet. Other beds of small extent, were noticed along the same stream.

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In the north bank of Grand river, in township before mentioned, a thin bed of coal occurs, having an average thickness of three inches, and not exceeding six inches at any one point. This coal which is also embraced in a succession of fissile shale, compact and friable sandstone, varying from ten to thirty-five feet in thickness, was traced across sections two, three, ten, eleven and twelve, where in consequence of its being covered with debris, I was unable to trace it farther.

A bed of bituminous coal, more than two feet thick, of a superior quality, in town four north, range two east, occurs in the bed and bank of Cedar river, Ingham county. It was traced along the stream for nearly half a mile, where, in consequence of its dipping below the stream, I was unable to trace it further. This coal is overlayed by a broken down sandstone and fissile shale, varying in thickness from five to ten feet. In consequence of its appearance in the bed of the stream, and the friable condition of the sandstone, I was enabled to remove several bushels of coal, which proved to be bituminous and of an excellent quality, containing but very slight traces of iron pyrites. It is compact, has a glossy lustre, ignites easily, burns with a light flame, and leaves only a small quantity of earthy residuum.

I was informed by Mr. Haden, that in excavating to repair Mr. Ingersol's mill, on the north bank of Grand river, in township four north, range three west, coal was penetrated upwards of a foot. The coal has a covering of coarse sand and pebbles, twelve feet thick. Some of the coal was examined, which proved not inferior to that on Grindstone creek, Eaton county.

I may here be allowed to express my obligations to many gentlemen for the information they have rendered, and hospitality which has been extended to me.

Detroit, January 28, 1839.

Detroit, Jan. 12, 1840.

To Douglass Houghton, *State Geologist:*

Sir—In compliance with your instructions, I have the honor herewith to transmit to you, the general results of so much of my geological and topographical examinations, made during the past year, as are of practical utility.

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In addition to the geological examinations, specimens have been collected illustrating the geology, mineralogy and soils of the counties examined, and in accordance with your instructions, by which the assistants in the department of geology were required to perform the additional duties of assistants in the topographical department of the survey, field notes for the construction of accurate topographical maps of nearly every township examined during the past season, have been returned to that office.

My time during the past year has been chiefly occupied in making a detailed examination of the northern and western counties of the State.

In order to avoid, as far as may be, that repetition which would necessarily result from a consideration of the counties separately, I have grouped in a single district, the counties of *Jackson, Calhoun, Kalamazoo, Eaton, Ionia and Kent,* and comprised in a second group, the lake counties, *Ottawa, Van Buren and Allegan.* The geological features of the first group of counties would be extremely interesting, containing as it does the principal coal series of the southern part of the State, were it not for that almost universal covering of diluvium and ancient alluvion, varying in thickness from a few inches to several hundred feet, beneath which they are to a great extent concealed.

General remarks on the counties of Jackson, Calhoun, Kalamazoo, Eaton, Ionia and Kent.

In their topographical features, these counties, as a whole, may be described as gently undulating, with frequent level tracts of land, and occasional irregular knobby ridges.

The major part of Jackson, Calhoun and Kalamazoo counties, presents black oak, white oak, and hickory openings, interspersed with plains of white, black and burr oak, and hickory; while there are numerous tracts of heavily timbered land and prairies.

Ionia and Kent counties are nearly equally divided between oak openings, plains, and heavily timbered land. Eaton county is mostly heavily timbered with beech, maple, &c.

The soils of these counties, as a whole, do not appear to have resulted from the disintegration of the rocks upon which they are based, but to have had their origin chiefly from the transition and primary rocks

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lying farther to the north. Intermixed with these, is not unfrequently a proportion of the debris of the coal bearing rocks, or the rocks of that series which forms by far the greatest portion of the district under consideration. Boulders of primary rocks, are not of unfrequent occurrence, and in some places occur in very great abundance.

The soil derived from these sources, presents all the varieties, from a silicious sand to a stiff clay; nevertheless, the most meagre of these soils contains the mineral and organic elements which are necessary to the growth of vegetation. As if to supply these soils, which may have been naturally meagre, or may have been rendered so by exhausting crops, nature has deposited inexhaustible quantities of manures, almost universally, throughout the counties, in the form of decayed vegetable muck, shell and tufaceous marl, marly clays, limestone and gypsum.

Marl, which is more universally distributed than any other of the calcareous manures of this district, and which will, in consequence of this fact, admit of a more universal application, is in itself more valuable for this purpose than limestone, since it generally contains vegetable and animal matter in combination, and its effects are more immediate. It exists in a state of minute sub-division, and is in a condition prepared to become directly a constituent of the soil; while it is necessary that limestone as well as gypsum, should first be reduced to powder.

MARL.

Deposites of marl were found in nearly every town in the counties under consideration, occurring in the beds and banks of lakes and streams, in marshes as well as occasionally on the elevated and dry lands, at a considerable distance from water.

This latter position is not unfrequent, but marls found in this situation, invariably show that they occupy what has heretofore been the bed of some lake or pool. Thus the marl does not seem to be confined to any particular soil or geological position.

LOCAL DETAILS OF MARL—JACKSON COUNTY.

Shell marl occurs more or less abundantly in the town of **Napoleon**, on sections 12, 14, 15, and 19, and other deposits of more minor importance, were also noticed in this town.

In the town of *Columbus*, marl occurs, forming a very extensive deposit in the vicinity of Clark's lake. It also occurs abundantly on sec-

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tions 8, 9, 13, 19, 28 and 29, in the same town. Several of these deposits have an area of more than one hundred acres.

Several very extensive beds of marl were noticed in the town of *Liberty*, on sections 11, 13, 23, 24 and 27, as well as in the bed of Powell's lake and in its vicinity.

The town of *Spring Arbor* abounds in extensive beds of marl, which were more particularly noticed on sections 21, 28 and 29.

Hanover. A bed of marl having an area of more than one hundred acres, was noticed, forming a portion of the bed and banks of Farewell's lake. Inexhaustible deposits of shell and tufaceous marls occur near a lake which forms the head of Kalamazoo River.

Town of *Sandstone.* Marl is not unfrequently met with in making excavations in the marshes of this town. It was noticed near the village of Barry, and also on the farm of the Hon. Mr. Gidley.

Pulaski. Marl occurs in abundance in many of the lakes and marshes of this town. A very extensive bed of shell and tufaceous marl was noticed on the farm of Isaac N. Swain, secison 2, occupying an area of more than sixty acres, and having a thickness exceeding six feet. An extensive bed was also noticed on section 25.

Rives. A somewhat extensive deposit of marl occurs on section 9.

Leoni. Marl in inexhaustible quantities, occurs near the outlet of Wolf Lake, and also upon sections 4, 11, 12, 22 and 23.

Town of *Jackson.* Marl occurs in this town, in abundance, on sections 20, 21, 26, 27 and 31, (town 3 south, range 1 west,) and also on section 31, (town 2 south, range 1 west.)

Concord. Several extensive beds of marl occur in this town which were more particularly examined on sections 8 and 9. Also in the bed and banks of the Kalamazoo River.

Grass Lake. On sections 13 and 29, in this town, extensive beds of shell marl were examined.

Spring-Port. An extensive bed of marl occurs on section 15.

Tompkins. An extensive bed of shell marl was examined on section 17, in this town.

EATON COUNTY.

Kalamo. Several very extensive beds of marl were observed on sections 22 and 25, (town two north, range 6 west,) and on section 19, (range 5 west.)

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KALAMAZOO COUNTY.

Texas. Shell and tufaceous marls occur in the beds of several lakes in this town. Also on sections 31 and 32, of the same town, is an extensive deposite of this mineral.

Alamo. On sections 1, 9, 12 and 24, extensive beds of marl were examined.

Cooper. Marl is not unfrequently met with in the alluvial lands in the vicinity of the Kalamazoo river.

Ross. Marl was noticed in several of the lakes and marshes in this town.

Kalamazoo. Tufaceous and shell marls occur in a large marsh, and in the valley of a small stream northwest from the village of Kalamazoo.

Chester. Extensive deposits of marl abound in this town, on sections 4, 9, 10, 11, 12 and 24.

CALHOUN COUNTY.

Marl occurs at intervals through this county in the alluvial lands of the Kalamazoo river, and pebbles and boulders are not unfrequently seen in the bed of the stream, incrusted with a thick coat of tufaceous marl.

Milton. Marl was observed in this town on the farm of Hon. S. McCamly. It also occurs in several of the small lakes and streams.

Marengo. Marl is of very frequent occurrence in this town. An extensive bed was observed on sections one and two.

Marl was observed in the town of *Marshall*, near Hon. A. Pierce's mills. Also, in comparatively small quantity, in the low lands between the village of Marshall and the Kalamazoo river.

KENT COUNTY.

Town six north, range nine west. Tufa occurs in this township in the bed of Flat River, on section twenty-six, in a very extensive deposite.

Marl was observed on sections three and eight, township six north, range twelve west.

Extensive deposites of shell and marl occur on sections twenty-two and twenty-three, township seven north, range ten west.

Marl was examined in township eight north, range eleven west, on sections thirteen and fourteen, in a dry burr oak plain.

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IONIA COUNTY.

Tufaceous marl occurs in inexhaustable quantities in the vicinity of Lyon, town of Maple. Incrusted in some portions of this tufa, are quantities of leaves, recent shells, and in one instance have been found the vertebræ and other remains of a large snake.

Marl occurs on section one, township six north, range five west; its extent unknown.

Extensive beds of shell and tufaceous marl exist near Mr. Dexter's mill, in the village of Ionia. Also, in the bed and banks of several of the small streams west of Ionia village.

Extensive beds of marl occur on sections ten, eleven and twenty-two, township eight north, range eight west.

This abstract of the locations of this valuable mineral only includes some of the most extensive deposites. It is sufficient, however, to render it apparent that marl is distributed in sufficient abundance to afford a ready supply for use as a manure, as also for the manufacturing of quick lime. It is within the reach of every man to obtain this restorative for his soils or a lime for economical purposes; an article of which, otherwise, much of the country would be nearly destitute.

PEAT.

This combustible alluvium is not unfrequently met with in the counties under consideration, in considerable quantities. That which has been examined, is chiefly of a coarse and fibrous character at the surface, while at a slight depth, its compactness is much increased. It will afford a tolerable article for fuel, when the wants of the country shall require it. This substance will, if properly prepared in compost-heaps, prove of great value to the farmer, as a manure for enriching his land, and occurring as it does in abundance, this must eventually become a subject of great importance.

CLAYS AND SANDS.

Sands and clays forming portions of the diluvial and alluvial deposites are found in occasional somewhat extensive beds, in various parts of the counties under consideration, and may be found occupying positions, from the lowest sink to the summit of the highest elevations, apparently having no regular order of place, but appearing in the form of irregular deposites.

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Sand, suitable for moulding, brick making and for mortar, occurs in great abundance, and is usually composed of grains of quartz, hornblende, and the debris of other primary minerals. It sometimes appears in a stratified form, and this stratification more frequently assumes an oblique direction to the plane of the horizon.

Many portions of the soft and disintegrating sand rock may be made to furnish a good material for the manufacture of glass; and its freedom from impurities renders it peculiarly adapted to use for this purpose. The most important situations in which sandrock, most suitable for this purpose, occurs, are at Jackson, Barry and Concord, Jackson county; also at the village of Marengo, and on the farm of Mr. Bagg, section seventeen, town of Marshall, Calhoun county.

The clays of these counties may be described according to their predominating colors, viz: red, grey and blue clays. The red and gray are by far the most abundant, and may be made to enter largely into use for economical purposes. By far the greater portion of these clays is contaminated by the admixture of lime, but since the marly portions of the clay usually form beds in the deposites, the manufacturer of bricks, if sufficient care be used to separate the different portions of the mass, is enabled without much difficulty to obtain a clay well adapted for the uses to which it has been applied. The marly portions may readily be known by the application of a simple test, which is always at hand; for if a small piece of clay containing carbonate of lime be thrown into vinegar, effervescence will take place, or, in other words, bubbles of carbonic acid will rise to the surface, and this will take place, more or less actively, according as the proportion of the contaminating marl or lime is greater or less. This simple test, which is within the reach of every individual, may frequently, if applied, save much disappointment and expense.

Blue clay is but rarely seen in these counties. In Eaton county, in township two north, range five west, a blue clay not unlike the clay in the vicinity of Detroit, was penetrated in digging a well to the depth of twenty feet. It contains primary gravel and pebbles.

BOULDERS.

Numerous water-worn fragments of the primary rocks are found scattered through the counties under consideration. They were noticed as

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particularly abundant on some parts of the territorial road between Jackson and Marshall; also in the vicinity of the Grand and Kalamazoo rivers. But few of these were of lime or sandstone. Among the lime boulders, a few were seen of several tons weight. They contain numerous fossils characteristic of an older rock than any found *in place* in the south part of this State.

BOG IRON ORE.

Deposites of bog ore occur in limited quantities in many places, its presence being apparent in the highly ferruginous spots of earth. The most extensive deposites were noticed in Pulaski, Jackson county, and at Kalamazoo and Prairie Ronde, Kalamazoo county. In the town of Pulaski, is a bed of this ore, having an area of not far from five acres, and is deposited chiefly near the source of several copious chalybeate springs, on the farm of Isaac N. Swain, section two. The ore is chiefly shot and ochreous, with intermixed masses of ore; the whole being mixed with tufaceous lime. This bed has been examined to a depth of more than five feet without penetrating through the bed. The ore is of a light yellow color, being what is technically known as live ore. It may be easily excavated, having but a slight covering of earth, and is also well situated for the manufacturing of iron, being in the vicinity of hydraulic power, wood, tufa, and sandstone, and is by far the most extensive bed examined in Jackson county.

It may be considered as sufficiently extensive to warrant the erection of a furnace for its reduction.

Ore occurs in the vicinity of *Prairie Ronde*, on section twenty-one, in beds varying from a few yards to several rods in extent, distributed over an area of fifteen to twenty acres, with an average thickness of six inches. It is of a dark color, and rests on peat and tremulous muck or decayed vegetable matter.

Bog ore of Kalamazoo. This ore is chiefly of a light yellow color, and occurs mostly in masses of several pounds weight, but also in the form of shot and ochre. It occurs in separate beds forming ridges, and these beds vary from a few rods to several acres in extent, over an area which may be estimated at from eighty to one hundred acres. It varies from a few inches to four feet in thickness. This ore is situated on and contiguous to the banks of the Kalamazoo river, and from half

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a mile to one and a half miles from the village of Kalamazoo. This is the most extensive and valuable deposit of bog ore I have examined in the State. It is well situated and will warrant the erection of an extensive foundry for its reduction. An analysis of one hundred grains of this ore gives the following mean results:

	Grains.
Peroxide of iron,	78.45
Silica and alumine,	7.95
Carbonate of lime,	1.10
Water,	12.50

KIDNEY IRON ORE.

The stratum in which this ore is imbedded appears in the slightly elevated bank of Nottawa creek, on section twenty-four, in the town of Athens, Calhoun county. In character and quality, this ore is not unlike that at Union City, Branch county. The clay in which it occurs is well adapted for the manufacture of brick or pottery.

GYPSUM.

Gypsum or plaster, occurs in Kent county, forming the bed and banks of Plaster creek, near the junction of that stream with Grand river. It makes its appearance at two or three places in the banks of the stream. After a careful examination of the surrounding country, I am led to conclude that this mineral exists in distinct beds extending at intervals, over an area of several miles. The precise limits I was unable to define on account of the almost universal covering of sand and gravel, by which it is concealed from view. The beds of gypsum rest upon or are embraced in the limerock of this district, and are surrounded by a gypsous marl, usually of no very great thickness. The gypsum is of the fibrous variety, and is well adapted to all the uses to which this valuable mineral is applied, and it cannot fail to prove of inestimable value to the agricultural interests of the surrounding country, as well as to the other parts of our State.

ROCKS.

The rocks of the counties under consideration, are not numerous, and these are so universally enveloped by the diluvium as to present but few points which allow of satisfactory examinations.

They may here be considered under two divisions; the rocks, which

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overlie or which are associated with the coal, and those which lie below the lowest of the coal beds. The latter division occupies the south part of Jackson, the south part of Calhoun and a large part of Kalamazoo counties, as well as a considerable portion of the adjacent counties on the south, which are comprised within Mr. Hubbard's district, and were examined conjointly with him. As the series comes more fully to view in the latter district, and in order to avoid repetition, it has been deemed advisable so to blend the reports as to leave to Mr. Hubbard the full consideration of all the rocks lying below the coal.

The coal bearing rocks included in the first division, embrace a series of alternating layers or apparently irregular beds of sandstone, shale, coal and limestone, holding the following order of place:

1st. *Upper coal strata;* consisting of layers of coal, shale and sandstone.

2d. *Limestone;* found in limited and apparently irregular beds.

3d. *Sandstone;* light grey and red.

4th. *Lower coal strata;* embracing as above, alternating layers of coal, shale and sandstone.

These will be treated of separately in ascending order, commencing with the strata which are found *next overlaying* the course, quartzose sandrock, mentioned by Mr. Hubbard as occupying the highest place in the series of rocks embraced in his report.

I shall preface my remarks on the lower coal strata, by some observations on the range and extent of the coal formation of this State.

The result of my labors in tracing the extent of the coal basin during the past season, has been more satisfactory than I could have anticipated, when the many obstacles that constantly retard such examinations are taken into consideration. The thick mass of detrital matter which covers a large portion of the rocks of the coal bearing group, is an effectual barrier to examinations of their character except at those distant points where the several rocks make their out-crop. The rapidity with which many of these rocks disintegrate and become covered with debris not unfrequently so effectually conceals them from view as to leave us in many places ignorant of the underlaying strata, except so far as deductions may be drawn from general principles. These are a few of the difficulties that I have had to contend with in reducing to anything like accuracy the general results of the scattered local information collected.

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In conducting these examinations, I found it necessary to pass over parts of the country previously examined, in order to determine with more accuracy the probable limits of the coal basin.

These examinations have led to the conclusion that the coal basin extends over a much larger area than had before been assigned to it. Most of this basin is so covered with the superincumbent strata of sandstone, sand and gravel, as to prevent the "working" of the beds, at very many points, except by the sinking of shafts for that purpose.

RANGE AND EXTENT OF THE COAL-BEARING ROCKS.

The following is the nearest approximation that our present knowledge of the subject can furnish towards the extent of the coal series of rocks in the counties under consideration. The rocks of the coal-bearing group, in their most southerly extension, occur at Napoleon, Spring-Arbor and Concord, in Jackson county; and at Albion, Calhoun Co. From thence the line of junction between these and the rock below, passes through the town of Marengo, and the north part of the town of Marshall; thence it continues westerly through the town of Penfield, into Barry county; through which county the line of junction has not yet been traced. Rocks of this group are again met with at the rapids of Grand river and its vicinity.

On the east the group of rocks appears in the towns of Leoni and West Portage, in Jackson county; and in the north-east corner town of Ingham county, in the bed and banks of the Red Cedar river.

Beyond this it has not yet been carefully traced, but its boundary is known to stretch north-easterly across the Shiawassee and Flint rivers, including the village of Shiawasseetown, Corunna and Owosso, within the basin; while the village of Flint, in Genesee county, will probably be found to fall a short distance without, and south-easterly from it; thus bringing within the limits of the coal rocks, parts of Genesee, Shiawassee, Ingham, Jackson, Calhoun, Barry and Kent counties, and probably the whole of Eaton, Ionia and Clinton counties.

LOCAL DETAILS OF THE LOWER COAL GROUP—JACKSON COUNTY.

In the N. E. corner of the town of Spring Arbor, along the valley of Sandstone creek, the coal makes an out-crop, owing to the removal of the superincumbent rocks, and has only a slight covering of diluvial sand and gravel. This coal was exposed in digging for the foundation

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of a mill, on section one, and an amount estimated at 1500 bushels has been raised. The influx of water from the creek prevented those engaged in the work from sinking through the bed; it was, however, penetrated at one point, to the depth of three feet. This coal has been used in smithing, and found to answer a good purpose.

This is probably the lowest stratum of coal in the State. There can be but little doubt that the bituminous shale discovered at Jackson, belongs to the lower coal stratum, and that coal might be procured at that place by sinking a shaft.

The embraced beds of coal appear to thin out as we approach the south edge of the basin; thus, a well, three-fourths of a mile north from Spring Arbor, has exposed, at a depth of fifteen feet, the lower bed of coal reduced to a thickness of about nine inches.

CALHOUN COUNTY.

Although no coal *in place* was met with in this county, the neighborhood of the coal bed is indicated at a few points. Thus, at Albion, I was led to this impression by the presence of its associated sand-rocks, and of coal thrown out of the stream in the bursting of the mill dam on the Kalamazoo, as also by the loose angular bits of coal found imbedded in the soils.

In the town of Penfield, I observed several large angular pieces of loose coal taken from Battle Creek. These evidently had not been transported far, and thus I inferred an out-crop of the coal bed further up the stream.

INGHAM COUNTY.

In the north-east corner town of this county, the coal crops out in the banks and bed of Red Cedar river. Here it is embraced in a succession of shales and friable sandstone, which constitute an overlaying bed of from five to ten feet thick. After penetrating to the depth of more than two and a half feet, I was compelled, for the want of suitable implements, to abandon farther investigation, without having ascertained its full thickness. The coal at this point is very accessible, and must, ere long, prove of great importance. It is situated on a stream that may be made navigable for flat-bottomed boats and pirogues, with comparatively small expense, during a considerable portion of the year, and opening a direct communication with Lake Michigan.

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LIGHT GRAY SANDSTONE.

The rock found next, superimposed upon the lower coal group just described, is a sandrock, mostly of a coarse quartzose character, and of grey or yellow color. It is distinguished from the quartzose rock further south and which lies below the coal group, by its containing impressions of the coal plants. It is rather friable when first quarried, but hardens by exposure. In the vicinity of the village of Jackson, clay iron-stone is disseminated through the upper parts of this rock, but not in sufficient quantity to be of any practical value. Impressions of plants, chiefly referable to the genera Lepidodendron, Stigmaria and Calamites, together with thin masses of carbonaceous matter, were noticed at quarries both north and south of that village.

It is of this light gray sandstone that the penitentiary and courthouse at Jackson are built.

Numerous kettle shaped excavations, similar to those produced by pebbles when set in motion by the action of a strong current, occur in this sandstone, and not unfrequently at a distance from the river, and at an elevation of some twenty to thirty feet above it. Similar excavations were noticed in the lower sandstone series, at a considerable elevation above the Kalamazoo river, near the villages of Marshall and Marengo, Calhoun county.

This rock occurs more abundantly in such situations as to admit of being economically quarried, in portions of the counties of Jackson, Calhoun, Eaton, Ingham, Shiawassee, Clinton and Genesee. When first quarried it is, as before stated, rather soft, but it soon hardens upon exposure, and forms a durable material for building, when not employed in such situations as to expose it to excess of moisture. In many places it also furnishes a good material for the manufacture of grindstones.

UPPER LIME ROCK.

This rock usually appears at the surface, in detached beds, extending over an area varying from a few acres to two or three sections in extent, and having a thickness, so far as could be ascertained, varying from one foot to sixteen feet. It is superimposed upon and usually appears near the outcropping edge of the light colored sand rock. This lime rock usually occurs in flat, irregular masses, and with but slight marks of

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stratification; most of it, when burned, produces a superior lime, and some portions will afford a good building material. The rock is usually of a light gray color, and exceedingly compact, but it varies in composition, some of the thinner portions partaking of an arenaceous character. Although numerous perforations of lithodomus molusca were observed in the less arenaceous portions of the rock, I was unable to find any perfect specimens of fossils, except in the most sandy portions. The greater number of these were found at Bellevue, Eaton county, and the Grand rapids, Kent county.

This lime rock was noticed on the sections designated in the counties as follows:

JACKSON COUNTY.

Town of Spring-Arbor, on sections 8, 9, 11, 12, 17 and 20.

Town of Sandstone, on sections 30 and 31.

Palma, on section 23 in low land.

The limestone was examined on sections 1, 12 and 13, town of *Jackson*, where it has been extensively used for the manufacture of quick lime.

West Portage. The limestone occurs on sections 6 and 7.

EATON COUNTY.

The limestone occurs in the town of *Bellevue*, on sections 27 and 28, where it is extensively burned for quick lime, to supply the surrounding country.

The out-thinning edge of the lime rock was seen superimposed upon a friable sand rock, on section 19, town two north, range five west, having a thickness of about 12 inches.

KENT COUNTY.

The lime rock is again seen on the west part of the State, at the rapids of Grand River, a point where, judging from the general inclination of the strata, its out-crop would be looked for. It is here identified with the rock of Bellevue, Eaton county, by its contained fossils, and composition. Lime is manufactured from the rock at this place, for the supply of the surrounding country.

LOCAL DETAILS OF THE UPPER COAL GROUP.

On comparing the results of my examinations of the two past sea-

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sons, it is apparent that the north part of Eaton county, described in my report of last year, and parts of the adjacent counties, are occupied by alternate beds of sandstone, clay shale, coal and argillaceous iron ore, which are wholly wanting in the more southern counties. This gives a greater thickness to the coal basin than had been before supposed, and also proves what has been previously suggested, that the Grand and Maple rivers, and the Tittabawassa and its tributaries, occupy the synclinal line of the State, thus accounting for the most copious saline springs being found through that range of country.

The subjoined sections will serve to show the manner in which the coal occurs, associated with the shales and sandstone in the upper coal group.

Section of rocks near the mouth of Grindstone creek, Eaton county.

	Thickness. ft.	inches.
1. Soil.		
2. Brown sandstone,	8	0
3. Argillaceous iron ore,	0	7
4. Sandstone,	3	0
5. Argillaceous iron ore, (in beds,)	0	5
6. Slaty sandstone, containing impressions of plants and coal,	9	0
7. Coal,	0	10
8. Friable slaty sandstone,	5	0
9. Coal,	1	8
10. Sandstone containing impressions of plants, occupying the bed of Grand river.		

The strata of this rock are not continuous, but soon blend together, and are seen at no great distance, to embrace thick beds of bituminous clay-shale, and thin layers of coal, the whole having a north-east dip.

About one mile from the mouth of Grindstone creek, the coal appears near the surface, having only a thin superficial covering of soil and broken sandstone.

Section of rocks taken on Coal creek, eighty rods above its junction with Grand river.

	Thickness
1. Soil,	6. ft.
2. Sandstone,	6.
3. Dark blue clay,	4.

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4. Bituminous clay shale,..... 2.
5. Dark colored shale,..... 2.
6. Blue clay shale,..... 6.
7. Dark colored clay shale,..... 4.
8. Dark gray shale, embracing beds of coal extending beneath the bed of the stream, exposing, however, a thickness of.....20

The associated shales do not appear to be continuous strata, but only occurring in beds embraced as before mentioned, in the upper portions of the coal series.

Clay shale analogous to this, occurs in township three north, range four west, section twenty-two, in the bed of a small stream. Associated with this clay shale last mentioned, are angular blocks of coal and sandrock.

RED SANDSTONE OF IONIA COUNTY.

This rock is well characterized, and is unlike any other rock met with in my district. It crops out on the south side and in the valley of Grand river, on section 22, (township seven north, range six west,) on the land of Mr. Dexter. The rock is of a red color, and composed of quartzose sand, slightly cemented, hardens by exposure, and affords a good building material. The quarry has been but partially opened. I was unable to find any traces of fossil plants.

This rock was again met with in the east of this county and the west of Clinton county, in the bed and banks of Lookinglass river. At this out-crop, the rock is more variegated, being filled with white spots and streaks, but in other respects it is not unlike the rocks previously described.

This rock may be regarded as occupying a place intermediate between the upper and lower coal bearing rocks.

VAN BUREN, ALLEGAN AND OTTAWA COUNTIES—GENERAL REMARKS.

The topographical character of these counties varies from that of the counties before described, in comprising no part of the high dividing ridges, and in being included in the more level districts which border on Lake Michigan.

The country is high and gently rolling, with the exception of a narrow tract of land on the lake coast; this tract being occupied by a series of

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recent sand dunes, or hills, varying in height from twenty to two hundred feet. Many of these are composed of sand which is constantly shifting its place from the action of wind. Such are nearly destitute of vegetation, while others have become stationary, being clad with a stinted growth of pine, and in some instances with oak, hemlock, beech, &c.

These counties are chiefly heavily timbered with pine, beech, maple, lynn, whitewood, ash, hemlock, oak, &c., interspersed with oak openings, plains and pine barrens.

Most of that portion of Van Buren county lying south of the Paw Paw river, and a portion of the eastern townships of Allegan county, consist of oak openings and plains.

SANDSTONE OF VAN BUREN COUNTY.

Sandstone occurs on the line between Van Buren and Allegan counties, in town one south and one north, range fourteen west. It exhibits a very compact texture, is of a reddish grey color, and is composed of quartzose sand, with a sparse intermixture of mica. It occupies a slight elevated knob, having an area of fifteen to twenty acres, and occurs in large angular blocks. As the quarry has not been opened, it was impracticable to ascertain any thing further of importance respecting it, than its composition and general character. I am unable, therefore, to refer to its place in the sandstone series.

CRAG OR CONGLOMERATE ROCK.

Formations of conglomerate were noticed near the village of Richmond, and on Maskego lake. The conglomerate near Richmond is apparently extensive, and occupies the sides of deep ravines; in some, appearing not unlike ledges of sandstone, forming mural escarpments many feet in height. From this general resemblance, it has been mistaken by the citizens for the sandstone formation.

It is composed of fine and coarse grains of quartzose sand, very strongly cemented with calcareous matter.

The conglomerate of the Maskego lake is but slightly elevated above the water, and is composed of coarse and fine sand and pebbles, united with calcareous cement.

This rock, which is of recent formation, resulting from causes now in operation, is of a purely local character, and the circumstances under which it occurs, do not admit of determining its extent.

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CLAY.

A red marly clay was observed in Van Buren, Allegan and Ottawa, underlaying a considerable portion of the complete counties, and only making its appearance occasionally at the surface, being mostly covered with sand and gravel together with some scattered boulders. Clay apparently of the same kind was also seen at the forks of the Muskegon river, Montcalm county. This clay bears a strong analogy to that forming the coast of Lake Michigan in the vicinity of Sleeping Bear, also on the west side of Grand Traverse Bay, as mentioned in the report of the State Geologist of last year.

This clay has calcareous matter disseminated through it in veins, and is generally free from gravel. It may be considered as belonging to the tertiary deposit, and was the only clay observed in these counties.

Two miles south of the Kalamazoo river, and at a brick yard half a mile north of the village of Allegan, this clay rests on a blue semi-indurated sand. At this place the clay has a thickness of not far from fifty feet.

Near the village of Richmond it was seen alternating with fine light colored sand. Much of this clay is very unctuous and free from grit. This clay was also seen at several places on Maskego lake and rivers, as a sub-soil to a light silicious soil.

This red marly clay will afford a good manure for the sandy lands.

SANDS.

Nearly the whole western coast of these counties in the vicinity of the lake is bordered with a succession of *sand dunes* or hills of sand.

This sand is chiefly composed of grains of quartzose sand, with a mixture of feldspar, hornblende, magnetic oxide of iron, &c.

A blue semi-undurated sand, as I have before observed, was noticed underlaying the red marly clay. This sand contains considerable calcareous and argillaceous matter, and is composed of fine grains.

It is to this sand that the rapid abrasion of the lake coast south of the mouth of the Kalamazoo river may be attributed.

LOCAL DETAILS OF MARL.

The great profusion in which this deposite is distributed through the counties of Van Buren, Allegan and Ottawa, is deemed a sufficient reason for noticing only a few of the most extensive deposites.

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On sections twenty and twenty-one, half a mile north-east from Mr. Newel's steam mill, on Maskego lake, is a very extensive deposit of shell marl that may be profitably used as a manure on the sandy lands of that vicinity.

Extensive deposites of shell and tufaceous marl occur in the valley of Kalamazoo river, on sections nine, ten, sixteen and seventeen, township three north, range fifteen west, of more than one hundred acres. Also on sections sixteen and seventeen, township four north, range sixteen west, there is a deposite of shell and tufaceous marl occupying an area of more than seventy-five acres.

A very extensive deposit of marl was examined on sections sixteen and seventeen, township three north, range thirteen west. Some portions of this marl are found to contain too much iron ore to make good quick lime. Care should therefore be had in selecting that portion of the marl which is free from this mineral.

On sections thirteen and fourteen, township two south, range thirteen west, marl of a good quality occurs.

SALINE SPRINGS.

Several saline springs and deer-licks were examined in the valley and vicinity of Maskego river. The most copious springs occur on the low alluvial land of the stream, where, at the time of the examinations, they were mostly inundated.

On sections three and four, township ten north, range fifteen west, are several weak saline springs, which occur in extensive low lands.

My guide informed me that the Indians were formerly in the habit of resorting to these springs for the purpose of making salt.

Also, on section fifteen, township nine north, range fifteen west, are several springs that show the presence of saline matter.

On section thirty, township nine north, range eight west, is a spring yielding a very copious supply, and which may be placed in the second class of the saline springs of the State.

The above are a few only of the springs noticed in the country north of Grand River.

BOULDERS.

Limestone boulders of very large dimensions were noticed in the different counties. In township one south, range fourteen west, was ob-

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served a limestone boulder of several tons in weight, that had been mistaken by the inhabitants for rock *in place*. It is sub-crystalline, and of a milky white color, and contains a few imperfect fossils.

Near the mouth of the Kalamazoo river, several very large boulders of blue limestone were noticed, which had been mistaken by the inhabitants for rock *in place*, and a kiln erected for burning of lime. The rock when burnt, furnished fifteen hundred bushels.

Boulders of the primary rocks are more rarely met with in the west part of these counties, than in the more central portion of the State.

Under this head of transported boulders, I would barely refer to the immense accumulation of the central nodular masses of clay iron-stone which occur in the vicinity of Richmond. These masses are found distributed through the soil, and accumulated in the ravines and beds of the small streams.

I have thus laid before you so much of the information collected in the district assigned me, as is compatible with the limits of an annual report, and such as may seem to be of the most immediate practical utility. It being presumed to be the main object of these annual reports to lay before the people of the State such practical results as they may profit by, while the work is in progress, and before the complete embodying of the somewhat disconnected mass of materials in the final report.

—

DETROIT, January 4, 1841.

To DOUGLASS HOUGHTON, *State Geologist:*

SIR—In conformity with your instructions, I have the honor to report, that the examinations, assigned me to be performed in the northern portion of the southern peninsula, have been as nearly completed as circumstances would permit. The duties performed under your immediate directions, in the region of Lake Superior, delayed the commencement of this work until the season was so far advanced as hardly to allow sufficient time for the completion of the unfinished work in this portion of the State.

In prosecuting the examinations in this district, I have made collections of duplicate specimens of all the rocks, together with their con-

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tained minerals and characteristic fossils, all of which are deposited, according to instructions, in the geological depot at Detroit, together with a transcript of my field notes.

Previous to making these examinations, it had frequently been reported to me that coal had been found by the Indians and traders in the high lands lying east from the Traverse bays of Lake Michigan. These reports were soon shown to be without foundation, for the reason that the whole of the rocks of this district, lie below those of the coal formation.

Remarks on the general character of the northern portion of the Lower Peninsula.

The country north of township nineteen north, and *east* of the meridian, is, on the whole, but ill adapted to the purpose of agriculture, being chiefly composed of sandy ridges, with intervening swales, and cedar swamps; many of the latter, however, are merely tracts of moist ground, covered with so dense a growth of white cedar as to be rendered almost impenetrable. The country rises so gradually towards the meridian of the State, as to leave it generally flat and wet; but were the country cleared of its timber, and the water courses freed from flood wood, much of the country would be rendered dry, arable land.

A large portion of the immediate shore of the lake, is low land, either entirely or approaching to swamp.

High land was noticed lying at some distance back from the lake shore, between Presque Isle and the Cheboygan river, which belongs to, and forms a part of, the chain of high land that appears on Lake Michigan, between Point Wabashance and Little Traverse bay.

The greater part of the country, after passing west of the meridian, is of a character very different from that just described, in point of soil, face of country, climate, &c.

From old Fort Mackinac to the Manistee river, the land immediately upon the lake shore, and not unfrequently extending back for many miles, is considerably elevated, and occasionally rises, very abruptly, to the height of from one to three or four hundred feet. The country (more particularly, the northern portion,) continues to rise as we proceed into the interior, until it attains an elevation equal to, if not exceeding any other part of the peninsula.

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This is more particularly the case in the rear of the Traverse bays, where this elevation continues for many miles into the interior, giving to the landscape a very picturesque appearance when viewed from some of the small lakes, which abound in this, as well as in the more southern portion of the State.

The tract of country under consideration, is based on limestones, sandstones and shales, which are covered, excepting at a few points, with a deposit of red clay and sand, varying in thickness from a few inches to more than four hundred feet.

The interior of the northern part of the peninsula, west of the meridian, is generally more rolling than that on the east. It is interspersed with some extensive cedar swamps and marshes, on the alluvial lands, and in the vicinity of the heads of the streams, and some of the lakes. The upland is generally rolling, has a soil of sand and clay loam, and is clad with evergreen timber, intermixed with tracts of beech and maple, varying in extent from a few acres to several townships.

Some of the most extensive of these tracts are in the vicinity of the Cheboygan and Tahweegan rivers, their lakes and tributary streams. There are also large tracts of beech and maple timber lying between the head of Grand Traverse bay, and the Manistee and Muskegon rivers.

The elevated portion of land on the shore of Lake Michigan, known as the "Sleeping Bear," as well as the Manitou islands, which when viewed from a distance, have the appearance of sand, are found to be composed (excepting the recent sand dunes,) of alternating layers of highly marly clay and sand. The clay is of a deep red color, and in many places its strata are much contorted.

The hilly region to which allusions have been made, is mostly heavily timbered with beech, maple, bass, oak, ash, elm, birch, &c., interspersed with tracts of hemlock and pine, and with an occasional cedar swamp. In the vicinity of Grand Traverse bay, this character of country extends into the interior for many miles, bordering on a series of small and beautiful lakes, which vary in length from two to eighteen miles, and are in general free from marsh and swamp. This country, as also that in the interior, from Little Traverse Bay, is well adapted to the purposes of agriculture.

Passing south of this rolling district, the country becomes less ele-

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vated, and more variable, the soil assuming a more sandy character, and being generally clad with evergreen timber. There are, however, exceptions to this, in some fine tracts of beech and maple near the lake coast, also in the vicinity of some of the streams in the interior.

It is nevertheless true that there are many extensive swamps and marshes in this part of the peninsula; but it is to be doubted whether, upon the whole, they exceed in quantity or extent, those of the more southern part of the State. In point of soil and timber, this portion of the State is not inferior to the more southern, and such are the advantages it offers to the settler, that the day is not distant when it will be sought as a place of residence by the agriculturist. The beauty of its lakes and streams is not anywhere surpassed. Such is the transparency of their waters as to permit objects to be distinctly seen at the depth of more than thirty feet.

The small lakes abound in the finest of Mackinac trout, whitefish, sturgeon, pike, bass, sun-fish, &c. The transparency of the water is so great, that the Indians are accustomed to spear fish where the depth exceeds thirty feet.

That part of the peninsula situated north of Grand river, is usually regarded by many of the inhabitants of the more southern part of our State, as being either an impenetrable swamp or a sandy barren waste, and as possessing too rigorous a climate to admit of its successful application to the purposes of agriculture.

This is an erroneous opinion, and one which will most certainly be corrected, as the facts with regard to this part of our State, come more fully to be known. The inhabitants of Flat, Rogue, Muskegon and White rivers, and the Ottowa Indians, living on the Grand and Little Traverse bays, and on the Manistee river, have extensive cultivated fields, which uniformly produce abundant crops.

The country on Flat and Rogue rivers is generally rolling, interspersed with level and knobby tracts, but none is so rough as to prevent it from being successfully cultivated. The timber in the vicinity of the streams consists of black, white and burr oak, which is scattering, and forms what is denominated openings and plains; small tracts of pine barrens, beech, maple and oak lands interspersed with tracts of white pine.

Settlements are rapidly advancing in this part of our State, and much

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of the land under cultivation, produces excellent crops of wheat, oats, corn, potatoes, &c., and so far as experience has been brought to the test, is not far inferior to, or more subject to early frosts in the fall than the more southern counties of the State.

The soil varies from a light sand to a stiff clay loam.

The country on the Maskego is rolling, and may be considered as divided into beech and maple land, pine lands, pine barrens, oak openings, plains and prairies. Small tracts of the latter are situated near the forks of the river, about forty-five miles from its mouth, and between thirty and thirty-five miles north of the rapids of Grand river. Crops of corn, oats, wheat, &c., were here as flourishing as those of the more southern part of the State. Several families are settled on prairies and along the valley of the stream. They have two saw-mills in operation, one at the forks of the Maskego river, and the other on a small stream five miles below.

The soil of the prairies and openings is sandy, while that of the beech and maple lands is a sand and clay loam.

The Indians of Grand and Little Traverse bays and vicinity, also obtain good crops of corn, potatoes, squashes, &c. Some of the most intelligent Indians informed me that their crops have never been known to fail entirely, and that they were seldom injured by frosts in the fall or spring. They also have many apple trees which produce fruit in considerable quantities.

This soil is strictly a "warm one," and exposed as the whole country bordering on Lake Michigan is to the influence of the southern winds, during the summer, and parts of the spring and fall, it seldom fails to be productive.

GENERAL GEOLOGY.

For convenience of description, I will arrange the several rock formations in groups, and beginning with those that occupy the highest place in the series, descending to the lowest, or oldest rocks. Owing to the great accumulation of superficial materials, which has prevented perfect accuracy from being attained, these divisions may be liable to modification upon subsequent and more minute investigations.

ROCKS OF LAKE MICHIGAN.

1. Tertiary and superficial materials. 1. Boulders of granite, &c. 2. Clay, sand, &c.

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2. Township 16 north. Manistee limestone.

3. Townships 31 and 32 north. Shale. 1. Light blue argillaceous. 2. Black, containing pyrites.

4. Township 33 north. Corniferous limestone. Containing beds of hornstone.

5. Township 34 north. Little Traverse bay limestone. Beds of limestone, intermixed with clay and chert.

6. Township 34 north. Black bituminous limestone. Composed of congeries of shells.

7. Township 34 north. Blue limestone, in thick regular layers.

8. Mackinac limestone. Very porous and much shattered.

ROCKS AS SEEN FORMING THE COAST OF LAKE HURON.

1. Alluvium. 1. Beds of rivers; 2. Incrusting springs; 3. Marl, tufa, peat, &c.

2. Tertiary and superficial. 1. Boulders and granite; 2. Beds of clay, sand &c.

3. Townships 20, 26 N. Point aux Gres. Limestone; light colored arenaceous, containing septaria.

4. Township 27 N. Shale. Black bituminous, containing pyrites.

5. Township 28 N. Thunder bay limestone. Beds of limestone and grey clay or shale, containing abundant fossils.

6. Townships 30, 31 N. Black bituminous limestone. Bituminous, composed of congeries of shells.

7. Townships 32, 33 N. Blue limestone. Compact and in thick strata.

8. Mackinac limestone. Very porous and the upper portion much shattered.

It will be seen by referring to the above sections of the rocks of Lakes Huron and Michigan, that the same rocks, with one or two exceptions, occur on both sides of the State, having the same geological position; also, that they have very nearly parallel and uniform positions. And from these outcrops the rocks would appear to have a bearing nearly north 70 ° west, and south 70 ° east, which line of bearing corresponds with the out-crop of the black bituminous slate on the east side of Lake Huron in Upper Canada.

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ALLUVIUM.

Under this head may be included all those formations which are the result of causes now in operation. Such as beds of shells and tufaceous marls, deposition of silt at the mouths of streams, disintegration of rock strata, growth of peat bog ores, &c.

SHELL MARL

Is in general, composed of small fresh water shells, chiefly univalve with occasional bivalve, which multiply most rapidly in shoal ponds or pools of water strongly impregnated with carbonate of lime. For the accumulation of fresh water shells and shell marl the waters of the streams and small lakes of the northern part of the State, are well adapted. This marl has accumulated in extensive deposits at the outlets and inlets of most of the lakes on the Cheboygan, Tahweegan and Pine rivers. There is, also, an extensive deposit of marl on the shore of Thunder bay, north of Thunder bay river.

Tufaceous marl is also rapidly accumulating at the rapids of the streams above mentioned, where the deposition takes place in consequence of the water here being much agitated. The carbonate of lime precipitated at these points is usually in the form of tufa, which readily adheres to whatever it comes in contact with, thus forming balls varying from one to twelve inches in diameter. Most of these balls have a shell as a nucleus.

TERTIARY AND BOULDERS.

Included in this division are alternating beds of red clay and sand which are nearly co-extensive with this part of the State. This formation overlays and rests unconformably upon the lower rocks of the district, and in which respect, it corresponds, with the same formation in the more southern part of the State.

It forms the base of most of the high banks of both Lakes Huron and Michigan, and is very finely exhibited at the Sleeping Bear, and on the Manitou islands of the latter lake. It also forms the base of most of the high knobs, in the interior of this section of the State. Most of this clay is very unctuous and nearly free from grit, but contains lime in sufficient quantity to injure it for the manufacture of brick.

Primary boulders are very rarely met with on the uplands; but

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those of a small size are very numerous on the shores of the small lakes, where there were also numerous boulders of limestones seen associated with them.

ROCKS OF LAKE HURON.

POINT AUX GRES LIMESTONE.

This rock is, for the most part, of a light cream color, of a compact structure, and will afford a tolerable building material. It contains numerous fossils. From this point north, on the lake shore, to Sulphur Island, rock was seen at intervals, forming the bed of the lake, which rock was referred to the sandstone formation. This space is undoubtedly occupied by sandstones and shales, the equivalent of those on the coast of Lake Huron from Point aux Barques south, to White rock.

Limestone of a very silicious character occurs on the Charity and other islands of Saginaw bay, where it was seen in contact with, and overlaying, the sandstone, and occupies the same superposition as the limestone at the rapids of Grand river.

BLACK SHALE.

A black bituminous shale was first seen at Sulphur island, and also extending along the shore of the main land, for some distance. It is highly bituminous, burning freely when thrown upon the fire, and contains numerous small nodules of iron pyrites. It may be considered as equivalent to the shales of western New York.

THUNDER BAY LIMESTONE.

This limestone occurs at the south cape of Thunder bay, forming an abrupt cliff, which rises directly from the water to the height of twenty feet. It is composed of alternating layers of compact and shaly limestone, and fissile clay slate; the latter of which forms a considerable portion of the cliff, containing nodules of iron pyrites and chert. Most of the rock is of but little value for economical purposes. It contains numerous fossils, among the most characteristic of which, are the Atrypa aspera and prisca, Delthyrus Speciosa, Calymene, bufo, Gorgonia, Millepore, Catenipora stellata, Cyathophyllum dianthus, Calamapora spongites, Pentremites pyriformis.

BLACK LIMESTONE.

This rock is seen cropping out at intervals on the lake coast, from

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Thunder bay island to Middle island, but it either occurs below the surface of the water or so little elevated above it, after leaving outer Thunder bay island, as to be difficult of examination.

Most of this rock is of an inferior character, and furnishes a coarse, rough, building material, and is of very little value in an economical point of view. Some portions of it are of a sub-slaty character, highly charged with bituminous, while portions are nearly composed of congeries of fossils. It is undoubtedly the animal matter from the fossils that gives to this rock its bituminous character.

Among the most characteristic fossils found in this rock, are the Calymene bufo Rowii and Blumembachii, Atrypa aspera and prisca, Delthyrus speciosa, Calimapora favosa, Orthis, Cyathophyllum ceratites, Orthocera, Calamapora favosa.

BLUE LIMESTONE.

Limestone of a light blue color, and very compact, was seen at intervals between Middle island and Forty mile point, forming the bed of the lake, or but slightly elevated above the water. It is regularly stratified and very compact, and contains numerous fossils; among those ascertained were the Atyrpa prisca and aspera, Orthis, Euomphaulus carinatus, Cyathophyllum helianthoides, Flustra.

MACKINAC LIMESTONE.

In the vicinity of the island of Mackinac, the upper portion of this limestone is chiefly made up of broken cemented fragments. The rock is of a light color, and the fragments of which it is composed frequently contain numberless minute cells. These were undoubtedly once filled with spar, which has been washed out of the exposed parts of the rock, by the action of water.

Many of the more compact parts of this rock, when first broken, show numerous small veins of spar piercing it in every direction, and owing to the porous character of the upper portion of this rock, it affords but a poor building material; while the lower part of the rock is more compact and has marks of regular stratification. This is more clearly exhibited on Round and Bois Blanc islands, and where a much better building material can be procured, than any seen on the island of Mackinac.

Hornstone, striped jasper, imperfect hogtooth spar, calcareous and

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fluor spar, and some very imperfect fossil remains, are occasionally found imbedded in this rock. The whole exposed portion has the appearance of having been very much shattered by an irregular upheave.

Limestone of a similar character to that above described, was examined on the main land, to the west of Mackinac island, forming the high bluff known as the "Sleeping Rabbit;" also forming the bed of the lake west of old Fort Mackinac, and extending westerly as far as Point Wabashance.

ROCKS OF LAKE MICHIGAN.

Rock has not been found to out-crop in that part of the State north of Grand River, lying between townships seven and fifteen north, and west of the meridian. But were the superincumbent sands and clays removed so as to expose the rocks to view, they would be found to correspond with those passed over in going south-east from the rapids of Grand river to Monroe county, being a succession of sandstones and shales.

Near the Manistee river, in township fifteen north, limestone appears in elevated cliffs; which rock is probably referable to the same series as that of Monguagon, in the south-east part of the State.

BLUE AND LIGHT GRAY SHALES.

This shale crops out on Grand Traverse bay, (in township thirty-one north,) forming a cliff of from five to fifteen feet in height, is of a light gray or blue color; most of it highly argillaceous, and is divided into thin laminæ, varying in thickness from one-eighth of an inch to two inches. The thin laminated parts of the shale are very friable, while the thicker layers are more compact and calcareous.

Minute crystals of spar were seen attached to and filling crevices in the most compact part of this shale. I was unable to detect any fossil remains in the shale.

BLACK SHALE.

This shale forms a series of abrupt cliffs, of from one to twenty feet in height, for the distance of nearly a mile on the coast of Grand Traverse bay, (in township thirty-two north,) being four or five miles north from the blue shale before described, and lies below it.

This shale is slightly bituminous, contains numerous nodules and

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specks of iron pyrites, is very friable, disintegrates rapidly before the action of the waves to which it is exposed, and closely resembles in character, composition and superposition, the shale of Sulphur island of Lake Huron, with which it may be regarded as indentical in geological position.

This shale was also examined in the north bank of Pine Lake, (in township thirty-three north, range seven west,) where it is but slightly elevated above the water of the lake; contains, like the shales before described, numerous nodules and specks of iron pyrites, is slightly bituminous, and is equivalent to the black shales of Lake Huron and Michigan.

Associated with the shale at this point, are large angular masses of fœtid limestone and shale connected together in the same mass; and these masses are frequently traveresed by thin veins of pearl spar; the latter also filling the small cavities formed in the rock. The masses of fœtid limestone above described, occupy places simply in the lower portions of the shale stratum.

CORNIFEROUS LIMESTONE.

The rock to which I have given this name is of a light gray color regularly stratified in layers varying from one-fourth of an inch to twelve inches in thickness, and is very compact; some portions of it affording a good building material. It contains large quantities of imbedded hornstone, in layers, from one to twelve inches in thickness, and which breaks into small blocks on exposure to the atmosphere. This limestone is destitute of fossils, in that portion which was examined.

LITTLE TRAVERSE BAY LIMESTONE.

These limestones agree in geological position and character, with those of the cliff of Thunder bay, Thunder bay island and Middle island of Lake Huron.

The limestones of Little Traverse bay rise directly from the water, forming abrupt cliffs, varying in height from five to thirty feet, and for the sake of a more minute description they may be sub-divided, and considered in a descending series, as follows:

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	Feet.	Inches.
1. Blue silicious limestone, much of it very compact, and will afford a good building material,	9	
2. A confused mass of broken fossils imbedded in clay,		2
3. Vesiculated chert, colored with iron,	1	
4. Flaggy limestone separated into layers, varying from one-fourth of an inch to an inch in thickness,	8	
5. Blue clay containing imbedded semi-crystalline grains of iron pyrites,	8	
6. Light blue limestone, below the surface of the water; thickness unknown; resembles the limestone of Middle island, Lake Huron.		

Most of the limestones of this bay are of an inferior quality for economical use. They are very much shattered, presenting in that respect a strong resemblance to the sandstones of the southern part of the State. Some portions of the rock on this bay are so shattered, as to have the appearance of a mass of loose blocks. Fossils were found in a very perfect state; among the most characteristic of which are the Atrypa prisca, Productus, Strophomena, Calamapora polymorpha, Cyathophyllum vesiculosum, Isotelus gigas, sarcinata, Ceriopora verrucosa, Catenipora labyrinthica.

BLUE LIMESTONE.

This rock was found out-cropping at the first point west of Pine river; also, south of the head of Little Traverse bay, and is there of a light blue color. It is elevated a few feet above the water of the lake and stream, where it embraces the black bituminous limestone, next described. The latter occurs here, in two or three thin layers, which are filled with fossils.

The blue limestone is very compact, in strata varying in thickness from one to two feet. These strata are much warped, as if by irregular uplift, destroying all regularity of dip. It contains numerous fossils, analagous to those of Middle island of Lake Huron.

BLACK LIMESTONE (SUBORDINATE.)

Embraced in the blue limestones, is found the out-thinning edge of the black limestone of Thunder bay island. It is seen in the bay be-

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neath the waters, and between one and two miles south of the head of the bay, in the bed and banks of a small stream, where it consists of several layers, from two to twelve inches in thickness; is highly bituminous, and is almost wholly composed of congreries of shells, which undoubtedly give to it its bituminous property. It burns when thrown upon the fire, with a brisk flame, so long as any of the bitumen remains, but the mass is not reduced in size by the burning.

It is the bituminous character of this rock, which has given rise to the reports that coal existed in the vicinity of the Little Traverse bay.

The Indians attach great value to this rock, for its inflammable quality; and upon inquiry being made of them, respecting it, they professed to be entirely ignorant of the existence of any rock of that character, in their region of country.

DEER LICKS.

Springs which have their waters slightly saturated with muriate of soda, and the salts of lime and iron, are occasionally to be met with, in that part of the State under consideration. In character and quality of water, they are equivalent to those which are found in Macomb and St. Clair counties, and cannot be considered as of much practical importance.

ANCIENT LAKE RIDGE.

In prosecuting my examinations in the north part of the southern peninsula, portions of ancient lake ridges were met with, which were found to correspond with that whose character was determined by Mr. Hubbard, and described in his report of last year, as occurring in the southern part of the State. No large continuous ridge was met with, through the country examined by me, but rather a series of small ridges, which were found to be composed of water worn pebbles, gravel and sand, not unlike those composing the present lake beach, and having an elevation, as nearly as I was enabled to judge, of one hundred and forty feet above the present water level.

These ridges were found the most fully exhibited on the islands and on the main land bordering the straits of Mackinac, and occur under circumstances that would seem to show that the water of the lakes had

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subsided gradually, or, (which would produce the same effect,) the land had been gradually elevated.

COLUMBUS C. DOUGLASS,
Assistant Geologist.

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METEOROLOGICAL OBSERVATIONS—1854.

BY L. WOODRUFF, ANN ARBOR, MICHIGAN.

	Mean Temperature.			Monthly Mean.	Maximum.	Minimum.	Clear days.	Part clear.	Cloudy days.	Rain.	Snow.	Thunder.	Amount of Rain and Melted Snow.
	7 A. M.	2 P. M	9 P. M.										
January,	17.5	25	21.6	21 3	46	-7	7	3	21	7	15	1	2.08
February,	20.6	32	24 9	25 9	48	-8	10	3	15	5	11	1	1.10
March,	29.2	42	35.7	35.6	65	13	14	3	14	10	3	2	2.03
April,	39.9	55.7	45.3	46.3	81	24	13	1	16	9	7	7	3.15
May,	52.3	67.2	56.7	58.7	80	35	16	5	10	18	1	7	3.15
June,	62.6	77.6	65.8	68 2	93	40	21	1	8	15	0	12	4.48
July,	68.6	84.4	72.3	75	96	45	23	1	7	14	0	17	2.29
August,	65.8	85.7	70.2	73.3	100	47	21	6	4	8	0	9	0.19
September,	58.4	76.2	63.3	66	100	35	15	5	10	12	0	12	3.68
October,	46	61.5	55 2	58.9	76	30	10	7	14	13	0	4	3.67
November,	32	41.7	35.2	36.3	57	20	5	5	20	9	8	0	1.92
December,	20.9	30	23.9	24.6	43	-10	9	4	18	4	8	0	1.65
Annual means and totals.	43.1	56 5	50.1	49.3			164	44	157	124	53	72	29.39

WINDS.

	W.	N.	E.	S.	N.W.	N. W.	N. E	S. E.	
January,	9	0	4	4	9	2	0	3	Frost April 12,
February,	3	2	7	2	9	2	1	2	18, 24. May 1, 4, 7,
March,	8	2	1	1	5	6	1	7	8, 22, 23, and June
April,	4	1	4	7	4	1	8	1	1 and 2. Last snow
May,	3	1	3	2	8	2	4	8	in spring, May 2.
June,	8	2	1	1	6	4	1	7	
July,	3	1	4	4	10	3	1	5	
August,	1	5	2	2	6	6	2	7	
September,	4	2	2	3	8	2	4	5	Frost Sept. 21, Oct.
October,	1	0	3	4	9	7	0	7	5.
November,	9	2	1	2	11	2	2	1	First snow Nov. 12.
December,	4	4	1	4	8	3	2	5	
Totals,	57	22	23	36	93	40	26	58	

January.—The weather of this month was generally cold, and exceedingly variable; the changes in temperature being abrupt and frequent, and occurring at a low range, greatly increased the severity indicated by the monthly mean.

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Only three inches of snow fell during the month, but rain was frequent, and of unusual amount. A heavy thunderstorm occurred on the morning of the 20th, and the weather for eight or ten days after was severely cold. The storm of the 20th was felt to a greater or less degree through many of the western States, and the fall of temperature which succeeded was very remarkable and in some instances, as at Cincinnati, unprecedented. There were about twelve inches of snow at the beginning, nearly all of which thawed off on the 4th. The earth, however, soon received a coating of ice from the frequent rains, which remained during the month.

February was less cold on the average than the preceding month, but not altogether exempt from sudden and severe changes. The weather was very cold and stormy from the 2d to the 6th inclusive, and during this extreme of cold the temperature sank to eight degrees below zero, the minimum of the season. There was a heavy storm of sleet on the 14th accompanied by thunder. The heaviest fall of snow was about three inches, on the 2d. The entire amount during the month did not exceed six inches. High winds prevailed on the 2d, 5th, 11th, 18th, 22d and 26th.

March.—The weather during the first sixteen or seventeen days was unusually mild and pleasant for the season, and without abrupt or severe changes. A heavy thunderstorm occurred on the 15th, and the temperature soon afterwards rose to 65. About noon of the 17th a very violent gale came on suddenly from the west and continued about twenty-four hours. During its continuance the temperature fell from 53 degrees to 14 degrees. About ten days of very winterlike weather and northwesterly winds succeeded. There being very little snow during the latter part of the winter, and occasionally very cold windy weather, the frost penetrated the earth in places from one to two feet, and remained in some instances till near the close of the month. During the last two days of the month the weather moderated, and a heavy rain fell on the 31st.

April furnished weather of a singular irregularity, and often gave that proper for spring, winter and mid-summer, all in the course of a few days.

The first ten days were quite warm, and on the 8th the temperature reached 80 degrees. Severe thunderstorms succeeded. About six

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inches of snow fell on the 14th, and that and the three following days were quite winterlike in temperature and aspect. Warm and very showery weather succeeded immediately to this, however, and continued till the 27th, when another severe change occurred, accompanied by snow. The rain was not excessive at any time during the month, but there was much severe lightning and thunder.

May.—Cool weather prevailed during the first ten days, and there were snow squalls on the 2d. There was no destructive frost during the month, however, and the weather was generally quite uniform in temperature. Rain was seasonably distributed throughout the month, the heaviest fall of which (1.20 inches) occurred on the 13th and 14th. The weather was also remarkably windy and stormy for the succeeding six or eight days.

June.—The total amount of rain was much above the average for this part of the season. Aout 2 inches, however, fell from clouds of very limited size, not reaching in any direction more than a few miles beyond the station. A sudden and great extreme of heat occurred on the 26th, 27th and 28th. It was accompanied and followed by severe storms in many parts of the country. Altogether the weather of this month was mild and wet to an unusual degree, and so far very favorable to vegetation.

July.—The amount of precipitation was slightly below the normal mean in this vicinity, yet there was but little need of a greater quantity of rain at any time, and no appearance of drouth till near the close of the month. The monthly mean of temperature shows the prevalence of remarkable extremes of heat. The temperature ranged from 92 to 97 on 8 days, and was accompanied in most cases by severe lightning and thunder.

August.—Until the 19th the temperature was somewhat below the normal mean for this period of the season, and the weather very dry. The remainder of the month was distinguished both by severe drought in this vicinity, and by the most extraordinary and protracted period of extreme heat ever experienced in this part of the country. The maximum temperature ranged from 90 to 100 degrees on all but 3 of the last 12 days of the month, and from 90 to 96 on 7 consecutive days. Under the shade of a tree on the 30th the temperature was 105. Toward the close of the month heavy showers occurred in various parts of

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the country, but seemed only to bring on an increase of heat. The severe drought of this month, attended by extreme high temperature, was probably much more injurious to crops than that of 1853, though its duration was considerably less. Corn especially, which promised an early and abundant yield up to the 1st of August, was reduced nearly one-half. This drought commenced at exactly the time when that of last year ended, and was followed by copious rains which in a few weeks seemed nearly to obliterate the injurious effects of a two month's drought.

September.—The extreme heat which prevailed during the latter part of August continued and increased during the first six days of September, after which there was a decided change to cooler and wet weather. During these six days the maximum temperature ranged from 97 to 100, reaching 100 on two days. The period of heat which ended September 6, had continued through 18 consecutive days, the average temperature at 7 A. M. being 71, at 2 P. M. 93.4, and at 9 P. M. 75.1.

Over two inches of rain fell here on the night of the 8th and 9th, and this was succeeded by timely rains and mild weather through the remainder of the month.

October.—The first killing frost of the season occurred on the 5th, or about two weeks later than usual.

Excepting a few days near the middle of the month the weather was very pleasant and warm for the season. The amount of rain was above the average.

November.—The weather throughout the month was quite uniform and mild, though there were more snowy days than usual toward the close of the month. The highest temperature (57 deg.) occurred on the 23d, and was succeeded by a heavy rain. The total amount of precipitation was considerably below that of Nov. 1853.

December.—About eight inches of snow fell during the month, and there was also considerable rain. The weather was generally quite cold until near the last of the month, when southerly and easterly winds prevailed. The lowest temperature was ten degrees below zero, on the 19th, an extreme of cold which has not before occurred in December for some years.

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ADDRESS

Delivered before the Michigan State Agricultural Society at its sixth annual fair, held at Detroit, Sept., 1854.

BY BELA HUBBARD, ESQ., OF DETROIT.

Mr. President and Gentlemen:

It has become customary, in the failure to secure a distinguished agriculturist, for an occasion like the present, to solicit the services of some eminent politician, as the one next best qualified for the expected performance. No bad idea certainly; for a successful politician ought to be able to occupy the *field* on every occasion, and one so well acquainted with the "fence" must certainly be familiar with the premises.

In sober truth, some of the most valuable agricultural discoveries have come from the politicians of our land—statesmen, whose cultivated minds and enlarged views of national polity amply compensate for deficient knowledge of the details of the farmer's occupation.

It is the misfortune of your present speaker, that while he can bring to the task little of the practical experience of the farmer, still less has he to exhibit of the wisdom of the statesman.

Instead, therefore, of attempting to enlighten this audience of practical men with wise maxims in husbandry, or profound views of political economy, I have chosen to select from the history of agriculture in our country, its early impulses and progress to the present prosperous period —some facts which have a general interest, and that may tend to exhibit in a connected view the diversified character and value of this great branch of the national industry. In other words, I propose to bring into juxtaposition the past and the present of American agriculture.

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I am aware that in such a review I explore what is, to most of you, already familiar ground. I trust my apology to those who have had fewer opportunities of knowledge. Whether in national or individual progress it is not unprofitable occasionally to review the first lessons; to pause, and generalize our facts; to note well the stand-point at which we have arrived, and from the store-house of past experience to draw just conclusions for the future.

Of the causes, that in all countries and ages have given prominence to agriculture over all other pursuits, I need not remind this audience. It feeds, it clothes us, it supplies our daily wants, it is the foundation of the pursuits, usages and benefits of civilization. Even among the most barbarous tribes a mode of agriculture is practised, and in proportion as man depends less upon the spontaneous products of the earth, and earns his bread by the sweat of his brow, in just that proportion is his nature exalted and he becomes distinguished for intelligence, for social and material strength, for commercial enterprise, for manufactures and arts, for respect to laws and religion. The primal curse is thus made a universal blessing.

Not only is agriculture the earliest of all arts, but we have abundant evidence that many ancient people were skilful husbandmen. The flocks and herds, the stores of fruits and grain, constituted the wealth and the pride of eastern nations long before the polished eras of the Greeks and Romans, and the most illustrious men among all nations have been tillers of the soil, with their own hands.

But this art has been not only the precursor, but the sharer in the improvements of the age, and while other arts have been lost, there is reason to suppose that agriculture has never retrograded; though its progress has been often slow, and in some respects it is even yet scarcely in advance of the most enlightened nations of antiquity.

Many of the rules laid down by the best Roman and Greek writers for the proper cultivation of the soil, and the management of flocks and herds, are as judicious and founded on as practical a conception of the fundamental laws of nature as modern times afford.

But that which distinguishes modern above ancient agriculture arises from the advance made in the sciences of chemistry, geology, meteorology and mathematics; all of which have an intimate relation with the operations of agriculture; and where these are best understood and ap-

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plied agriculture is in its most flourishing state. The want of a general knowledge of these principles and their relation to the soil and vegetation, has caused this art to languish in those countries where it was once so flourishing. It is a fact that at this day it is at a low ebb in most countries of Europe. Good examples of successful scientific agriculture are afforded almost by England alone, for there her most cultivated minds have been directed to the culture of the soil, partly from preference, partly from necessity. The attention of enlightened minds to this great branch of national industry has made a garden of England; it has overcome the evils of her moist climate, it has converted her bogs and wastes into fertile places, and brought her worn-out soils into the richest and most fruitful of any lands.

It was the misfortune of all the early attempts at settlement in the new world, that other objects were in view than those which are the foundation of successful colonization. Had the early adventurers to the coasts of America, instead of searching the virgin soil for its imagined treasures of gold and other minerals, been as eager to develop the true wealth of the country, by seeking out and cultivating its vegetable productions, America would not have mourned such a long series of failures and such a waste of human life.

Yet even those inveterate gold hunters, the Spaniards, were struck with admiration at the beauty, variety and luxuriance of vegetation in the new hemisphere that Columbus had opened to mankind. Eyes that had been accustomed to the stunted products of the worn out soils of the old world, dwelt with undying admiration upon the luxuriance and profusion of those that sprung, untilled, from the virgin soil of the new. They painted in the most glowing colors—yet often exceeded by the reality—the majestic first growth, huge monarchs of vegetation, towering far above the giants of their own woodlands, festooned with vines and hung with fruits; while to their warm imaginations the soft gales that swept from the land as they sailed past the shores, were freighted with a delicious fragrance surpassing the world-famed Araby. But even these evidences of fertility helped to render them averse to tilling a soil that yielded so bountifully its unsolicited fruits.

To Sir Walter Raleigh belongs the honor of attempting the colonization of the new world, by the establishment of an agricultural community.

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Until the expedition fitted out by Raleigh to the shores of Vrginia in 1585—the first English settlement in America—no notice seems to have been taken of those native products that the new world has furnished to the old, and that have now become so important a part of the world's consumption.

Hamit, the historian of this expedition, a man of shrewd observation and wise judgment, was the first to observe, with the eye of a vegetarian, the character and culture of the few plants upon which a rude husbandry was bestowed by the "natural inhabitants."

These consisted of but two or three plants, then unknown to fame, but which have since filled a place in the estimate of mankind, in ministering to real and fancied wants, second to no other product of the earth.

Of these, one was an inferior looking, low growing plant, with stems and leaves of a dusky green, and bearing a small purple flower, in a few irregular clusters. It emitted a noisome odor, and belonged to a poisonous family. Attached to its roots were small tubers, which, when properly managed, were found to be edible and could be partaken of with impunity. It was but little known, even to the Indians, its only cultivators, and required a better cultivation than they were in the habit of bestowing, to elicit its good qualities. This little regarded and homely vegetable was the *potato;* now a favorite over the civilized world, and about the only food of whole nations.

Another plant shared a more favored culture among the natives of America. Its appearance was more gay and respectable. Its thick, ovate, green leaves shot upward from the surface of the ground, enclosing a stalk of some 3 to 5 feet in height, crowned with rose-colored flowers. But this was one of a race of still more virulent poisoners. Its qualities seemed to belie its good looks, for its taste was acrid in the extreme, and even its odor produced nausea. This gay deluder among the vegetables was the *tobacco plant;* in spite of its noisome qualities now become the cherished favorite of luxury-loving man throughout the world.

Another of the plants then known only to the new hemisphere belonged to a very different family, and was one of the most beautiful of vegetables that yielded food to the hand of labor. It was the principal object of culture among the Indians and their staple article. It grew to

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the height of from 6 to 15 feet. From its strong, jointed, grass-like stem, sprang broad, lance-shaped leaves of the richest green, some of which embraced the parent stalk, and some enclosed the seed, resembling that of the known cereal grains, but on a more magnificent scale, and each hung at the extremity with long, silken tassels. This lovely plant was the *maize*, or *Indian corn;* a product of the American soil still prized chiefly in its native country, but worthy of a more extended reputation, and destined, we doubt not, when better appreciated, to furnish to starving millions a more agreeable and nutritious food than any now food on the tables of the poor of Europe.

In alluding to these vegetables, first found upon the soil of young America, and now so well known to the whole race of mankind, I may be excused a little digression, to sketch the progress of *tobacco* and the *potato* in the affections of the human family.

The introduction of tobacco into Europe was the fruit of the first attempt at English colonization of America. Its use met with the most violent opposition, both royal and plebeian. King James, by enactment and by argument, took a determined stand against the new luxury. He published a "Counterblast to Tobacco," following up his royal edicts with all the ingenuity of reasoning and caustic wit which his pedant pen could devise. The Pope excommunicated those who used it in the churches. It was anathematised by sovereigns and prelates. The Grand Duke of Moscow and the King of Persia forbade its use, under penalty of the loss of the nose and even of death. But the potent weed prevailed over crown and crosier, and so universal has become its empire, that it is difficult to say which of those two products, tobacco or the potato—the one a minister to man's luxury, the other to his urgent want—is considered most an article of necessity. Man usually bids highest for his luxuries: tobacco, like alcohol, is one of these delicious world-poisoners, more dearly prized, more eagerly sought after and paid higher for, than his daily food.

The potato, too, worked its way against the most determined opposition. Though slow to make known its merits, it at last triumphed over the bitterest prejudices.

When Parwentier, a distinguished chemist and agriculturist of France, endeavored to make the value of the potato known to his countrymen, he was met with the weapons of ridicule, then of argument, and at last

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of parliamentary decrees. He made a grand dinner, consisting chiefly of this vegetable cooked in a variety of ways—which Monsieur only had the wit to invent—to which he invited the French council, in hopes that some of his dishes would please their palates; "with bak'd, and broil'd, and stew'd, and toasted, and fried, and boil'd, and smok'd, and roasted," he fed the town; but they raised the cry that he was attempting to poison the nation. He offered the vegetable to his countrymen without price; but no one would receive on such easy terms so disreputable a stranger. At last he resorted to the cunning and successful expedient of planting them near the roadside; so that those who could not be persuaded to accept as a boon, might be induced to *steal* the mistrusted article, and make secret trial of its virtues.

Unlike its brother plant, the potato has carried a blessing wherever it has gone. In vigor and health giving qualities it may perhaps be rated not even second to bread itself.

But so little did agriculture enter into the calculations of the political economists who planted the early American colonies, that out of the 105 emigrants who formed the first English settlement under a colonial charter, in 1606, but 12 were laboring men. The colony was composed of vagabond noblemen, gentlemen and merchants; the conditions of whose tenure of the soil were fealty and rent; the rent being one-fifth the net produce—not of husbandry—but of gold and silver. After three years "so little land had been cultivated at the 'plantation' of Jamestown—that it was still necessary for Englishmen to solicit food from the indolent Indians, to preserve themselves from starving." "When you send again," writes the famous John Smith to the company, "I entreat you rather send but 30 carpenters, husbandmen, gardeners, fishermen, blacksmiths, masons, and diggers up of trees and roots, than a thousand of such as we have." "Necessity," says Bancroft, "at last converted the 'gentlemen' into accomplished wood cutters."

The first real impulse to agricultural prosperity resulted from the establishment of private property in the soil, instead of the old feudal tenure. The land laws of Virginia, about 1616, established a bounty on emigration of from 50 to 100 acres of land, and a payment to the company of £12 10s., obtained a title to 100 acres. Tobacco became a staple article of Virginian industry, and King James, whose anathemas

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had been so loud and vehement, was easily content to derive the chief revenue of his colonies from the profits of the detested weed.

Agriculture began now to make such progress, that when the colony of Maryland was founded in 1634, Virginia was able, from its surplus produce, to furnish a supply of food to the colonists, and all kinds of domestic cattle.*

The pilgrim colony of New England commenced, in 1620, with different motives and under far different auspices from that of Virginia To secure capital they had formed a partnership with London business men, by which profits and lands were to be shared at the end of seven years, the merchant lender's share being of course the lion's portion. Under this system of common property agriculture did not flourish. The soil and climate were also unfavorable, and sickness was added to these hardships, so that in the third year of the settlement, the pilgrims were "saved from famishing by the benevolence of fishermen off the coast."*

In the spring of 1623 a departure was made from this system. It was agreed that each family should plant for itself; and parcels of land were assigned them for independent culture. Husbandry flourished when it was produced by contented labor. In a few seasons "so much corn was raised that it began to form a profitable article of commerce, and the Indians, preferring the chase to tillage, abandoned culture, and looked to the colonists for their supply."*

Thus early in the history of America, was agricultural prosperity coincident with civil liberty.

Before further tracing its progress, let us for a few moments, survey the character of the field which America opened for the pursuits of husbandry.

The agricultural character of a vast country like ours is dependent upon so many circumstances, that I hardly know what to pass over and what to bring to your notice.

The United States embrace a territory comprehending the whole breadth of the temperate zone, and touching sufficiently upon the colder latitudes to include all those which are usually considered the most favorable for the culture of the great staples of human consumption.

But latitude is far from being the only circumstance which governs

*Bancroft.

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production. The tides of the air and the ocean, the rocky foundations of the earth, rivers and lakes—all these enter largely into the account of scientific agriculture, and become subjects of enlightened study and consideration. Our allusions must be very cursory.

The Gulf Stream, as it passes out of the Gulf of Mexico, and sweeps along the whole eastern frontier of the United States, essentially modifies the rigors of climate in the New England States; while the return stream from the polar regions, passing under, but mingling its colder current with the waters of the gulf, helps to give to the States on our southern border, that mild and equable climate for which they are distinguished.

The connection between the geology of a country and its agriculture is well understood. New England, composed mostly of rocks of the "primary" or granite system, has a soil by no means naturally fertile; and that, under unfavorable circumstances, so much has been accomplished, in that "land of gray rock and shaggy wood," is due to the energy, enterprise, and free labor of its population.

On the other hand, the States comprised within the immense valley of the Mississippi have a soil unexcelled for fertility in the world. It is composed, in great part, of drift and alluvium, not directly derived from the rocks lying below. Commencing at the chains of trap and primary rocks which bound the shores of Lake Superior, and extending southerly, we find a deep mass of sands, gravels and clays, spread, as by some deluge, over the whole country, often deeply covering and concealing the underlying rocks, and composed of the fragments of a great variety of rocks, among which limestone and trap are conspicuous. Of such are the soils of Michigan. The immense belt of limestone which nearly surrounds our peninsula, and the great abundance of trap rocks further north, have furnished largely to the soil those mingled and fertile materials which have constituted it one of the best in the Union and especially suited to the production of wheat.

Proceeding southerly, to the middle States, this "drift formation" gradually thins out, and the soils may in general be determined by, and traced to, the rocks which compose the frame work of the country.

Throughout this valley region, westerly and southwesterly winds prevail. Sweeping up from the warm south, these carry a portion of the high temperature of those latitudes into the northerly portions of the

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valley, and render the climate there more bland, while the exposure of the eastern States to the cold winds from the Atlantic and the "icy north," tends to render their climate more severe.

The great lakes upon our northern frontier further aid to modify the climate of the surrounding country, essentially moderating the rigors of winter, and providing upon their borders a vegetable and animal growth, which belongs to much more southerly latitudes.

Nature has been bountiful to our country, and in no land has mother earth spread forth stronger attractions to woo her children to her bosom.

The agricultural productions of so vast a country, embracing such a variety of climate, soil, and situation, must be necessarily various. In pursuing my proposed plan, I shall allude briefly to the most important of them, though I do little more than repeat familiar facts.

Beyond question the great staple of American exports is *cotton*. This plant is indigenous to the tropical regions of America. It was introduced into Virginia in 1621, but its culture was not greatly extended until the invention of the cotton gin, by Eli Whitney, 1793. This great invention deserves a passing notice. It accomplished more for American agriculture, in extending the cultivation of our great staple, than all the legislative aid ever given it, in any country. We rejoice that the honor of this invention is due to an American citizen; and we cannot but remark, in alluding to the benefits conferred upon our agriculture by this noble piece of mechanism, how intimately connected are all the great branches of American industry; bound to each other by the indissoluble ties of a common interest.

The cultivation of this staple is almost entirely confined to the most southerly portions of the Union, the principal producing States being Alabama, Mississippi, Georgia and South Carolina.

Previous to the revolution there were no exports of cotton from the country, and until the invention of Whitney, it was hardly worth the trouble of cultivation. Now the value of the exports of this article exceeds that of all other agricultural exports of the country. According to Pitkin, the exports of cotton for the average of the four years from 1827 to 1830 inclusive, were valued at $24,000,000; constituting nearly one-half the average value of all our domestic exports during those four years. Each return of the census has shown a steady increase.

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The present average crop exceeds 2,500,000 bales, valued at $150,000,000; the capital invested being not less than $1,000,000,000. Nearly all the cotton imported into England is of American growth, and the manufactured products of this article equal one-sixth the entire exports of that kingdom.

Next to cotton, in national importance, is *tobacco.* I have already stated that this plant is of American origin. It has been the great staple of Virginia and Maryland from their first settlement. Next to those States in its production are Kentucky, Tennessee, Missouri and North Carolina. It is also cultivated to some extent much farther north, our own State yielding annually a few thousand pounds. For some years prior to the American revolution about 85,000 hogsheads were exported, then valued at more than $4,000,000, and constituting nearly one-third in value of all the exports of the British North American colonies. The exports, since the establishment of the present national goverment, have scarcely exceeded those prior to the revolution. From 1820 to 1830 tobacco constituted about one-ninth in value of all the domestic exports of the United States. The present entire crop probably exceeds 200,000,000 pounds, valued at from 8 to $12,000,000.

With the exception of some finer qualities of tobacco raised in the Spanish colonies, the tobacco of the United States is decidedly superior to that of most other countries, although it is now raised, to some extent, throughout Europe. There is no nation with whom we trade that does not use it, and nearly all the tobacco imported into England is from the United States.

Notwithstanding this, we are large importers of the finer qualities of tobacco, chiefly cigars, to the tune of $3,000,000 annually.

Rice is another of the crops which bear a considerable part in the husbandry of the southern States, though its relative importance as a staple of our country is small, and does not seem to be on the increase.

It is a native of India, but flourishes well in Georgia and South Carolina, into which latter State it was introduced about 1694. It finds there a congenial situation, growing most luxuriantly where few other agricultural productions will live—in swampy grounds.

The average annual value of the exports of rice of the last three years does not exceed $2,500,000; about which average they have maintained since the commencement of the century.

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Sugar, from the cane, is an article of agricultural production in some of the southern portions of the Union. Louisiana is by far the largest producing State, exceeding by five times the produce of all the other cane growing States. Next to this follow Florida, Texas, Georgia, Mississippi, in the order named. The average annual product is about 300,000 hogsheads of 1,000 lbs. each. Sugar is also produced extensively from the maple, for domestic consumption, in the northern and middle States. This is not an article of export, the production being far from equal to the home consumption.

The production of sugar from the beet, so extensively and successfully practised in France, has been attempted with us. I will only allude to an experiment made in our own State. In the county of St. Joseph, a few years ago, a company was formed who commenced the beet culture on a large scale, and Gov. Barry was deputed to visit France with a view of obtaining all the necessary information relating to the manufacture. His report was decidedly unfavorable, and the project was abandoned.

Sugar is an article of such universal use, in all countries, by rich and poor, that it has become a necessity rather than a luxury, and the culture of the plants which yield it deserves to be much more greatly extended.

In the production of breadstuffs the United States necessarily finds rivals among almost all the nations inhabiting the temperate regions of the globe.

Wheat, the most important of these, enters most largely into the products of the grain growing parts of our country, and is the great staple of the middle and western States.

From 16 to 20 varieties of winter wheat and 6 or 8 of spring wheat are cultivated in the United States at this time.

Its culture extends throughout all the United States north of latitude 37 deg., embracing the northerly half of the Union, though but little is now cultivated in New England. The crop of 1850 exhibits the principal wheat States in the order of their rank as follows: Pennsylvania and Ohio produced about 15,000,000 of bushels each, Virginia and New York 13,000,000 each, Illinois 9,500,000, Indiana 6,250,000, Michigan 5,000,000, Wisconsin 4,000,000. The entire wheat crop of the United States averaging about 100,000,000 of bushels.

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But, though our State takes the seventh place in the order of wheat producing States, if we compare the crop raised with the population, a more favorable result meets us. For while the average crop of N. Y. scarcely exceeds 4 bushels to each inhabitant, and that of the States upon the Ohio 8 bushels, the crop of Michigan exceeds 13 bushels to each citizen.

Owing to the cheapness of land, and the consequently little comparative cost of production, as well as the adaptation of the climate and soils of this country, we have been enabled to compete with the wheat growers of Europe in their own markets. The exports of this article have nevertheless been exceedingly valuable. From the period of the revolution to the war of 1812, the increase was uniform and rapid, reaching from an annual value of $3,000,000 up to $14,000,000. Since which period the decrease has been almost as rapid; the export of 1850 being less than $1,000,000, while the average of the past 5 years does not exceed $1,600,000.

The state of Europe during the three years of our last war with Great Britain, contributed with unusual agricultural prosperity to greatly increase the amount of our exports during that period. On the other hand, the heavy duties imposed on the importation of foreign grain into most of the European countries, has amounted almost to a prohibition, except in seasons of great scarcity. The large and increasing emigration to this country, and the disproportionate growth of cities and villages over the country population, will probably account for this great diminution in our exports of this important article.

Since 1850 an increase has taken place, the exports of the past two years having more than doubled.

I have already alluded to the culture of *maize* or *Indian corn*. This is unquestionably a plant indigenous to American soil, and its representation upon ancient Aztec monuments is an evidence of the estimation in which it was held by the aborigines at a very early date. There are many varieties, which require different periods of ripening, varying from five months to six weeks. Owing to this, its cultivation is extended over a wider range than any other grain. The intense summer heat of our climate, though of short duration, is ordinarily sufficient to ripen this grain throughout the northern part of the United States. It is cultivated in every State and territory of the Union, but its most congenial

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home is in the middle States, though its birth-place is claimed by the sunny south.

As wheat can be profitably cultivated only in the the cooler parts of the temperate zone, and rice only in the warmest portions, this plant acquires a value with us hardly second to wheat itself.

It contains a large proportion of the elements most important for nutrition, and it is asserted that a given quantity of it will go farther to support life and sustain muscular exertion than that of any known substance. Mixed with rye it is well known to constitute the common bread of New England. Coarsely ground and boiled it is the "hominy", of the south, and the principal food of the negroes.

One of our earliest New England poets has celebrated its virtues in verse, and esteemed his favorite "hasty-pudding" worthy the fame of an epic, and he will be right who boasts,

> "Thy constellation ruled my natal morn,
> And all my bones were made of Indian corn."

Some benevolent gentlemen have at various times endeavored to promote its use and cultivation in foreign countries, particularly England and Ireland. Among those of our countrymen conspicuous in this effort are Elihu Burritt and the lamented Henry Colman. The celebrated Cobbett was an enthusiast in behalf of this plant, which he endeavored to write into a reputation with his countrymen of Great Britain. He showed them that every part of this plant is useful; that the stalks supply a better food for cattle than the most nutritious grasses; that the husks are excellent for beds, and may even be made into paper. He published a book in its praise, upon paper thus fabricated. But all these efforts signally failed. John Bull was not to be captivated by Yankee tastes. The meal was found not to bear transportation well, and its culture elsewhere has resulted unsuccessfully. It requires our warm and dry summers to bring it to perfection—

> "For climes oblique, that fear the sun's full rays,
> Chill'd in their fogs, exclude the generous maize:
> A grain whose rich, luxuriant growth requires
> Short gentle showers, and bright etherial fires."
>
> BARLOW.

American housewives, too, alone possess the secret or the skill to cook in a becoming manner the capricious diet. So that the maize seems destined to be a luxury, which, like the shad and the whitefish, is to be

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enjoyed in perfection only in the land of its origin. It is doubtless, to the very pith, a genuine "Native American."

Indian corn and meal are, however, exported in considerable quantities, principally to the West Indies, Spain and Portugal. From the commencement of the century until 1830 the annual export of corn and meal did not exceed 2,000,000 bushels, valued at about $1,500,000. The annual average for the years 1848 to 1851 inclusive, bore a value of about $4,500,000. The total annual product, being about 600,000,000 bushels, or nearly six times the number of bushels of wheat raised the same year, shows how largely this grain enters into the domestic consumption. In actual value this product greatly exceeds that of any article of produce of our country.

The *potato* has already been alluded to as of undoubted American origin. The first mention which is found made of it was about the year 1588, but it was not extensively cultivated in Europe until the 18th century. Its cultivation extends from within the tropics to the extreme northerly limit of the temperate zone, being found up to lat. 64 in Sweden. Unlike the maize, it exhibits no partiality for the land of its birth, but is a true cosmopolite, readily adapting itself to all soils and every exposure. It has added millions to the population of Europe, and rendered famines almost unknown in countries where they were once frequent. To this remark late years have proved an exception, the disease known as the potato rot having hitherto baffled to a great degree the skill of the best cultivators. It is to be hoped that American science, which is actively engaged upon the subject, will soon be able to suggest the true cause and the remedy.

The exports of this article are inconsiderable, as are also those of rye, oats, and other small grains and pulse, the produce of which finds chiefly a domestic consumption, being largely cultivated for this purpose in all parts of our country.

Hemp is becoming an important article of agricultural production, though scarcely yet an article of export. We are in fact still importers of most of the hemp used in this country, though we possess soils and climate adapted to the culture. Considering its increasing importance to our marine service—notwithstanding its diminished use in an old-fashioned but very *capital* way, now become somewhat obselete—it is deserving of much greater attention.

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More than half of the hemp product of the United States is raised in Kentucky.

The cultivation of several other articles, of which we are importers to a large extent, such as silk and tea, has been attempted with more or less success in this country, and may require a brief notice.

Most of you doubtless recollect the mulberry mania of 1836, which partook more of the character of a commercial speculation than a legitimate agricultural project. It failed of course, though it is still warmly anticipated by many enthusiastic advocates of the culture, that silk will yet become an important article of American production. I am not one of those enthusiasts. For, though our soil is perhaps as well adapted as any other to the growth of the mulberry, I believe we must first approximate the dense population and the cheap labor of eastern nations, before our country can compete successfully with those silk raising countries.

The same remark will apply to the raising of tea, unless the ingenuity of our countrymen should devise some mode of saving the labor at present bestowed upon the preparation of this article for the market, by the overstocked population of China.

The experiment of raising the tea plant, has, however, been made in South Carolina, and, as is claimed, with complete success. It is a plant belonging to our temperate climate, and may undoubtedly find here soils as well adapted to it as those of China.

It is said also that the expensive process used in that country is unnecessary, and that American skill will find means of improving the quality of this great favorite, and of dispensing with the deleterious ingredients which are often mixed with it abroad.

Our view of the staples of American agriculture would not be complete without including wool.

It is but a very few years since much attention has been given in this country to the growing of the finer kinds of wool; it having long been the prevailing opinion that our soils and climate were suited only to the coarser kinds. The recent introduction of the Saxon, Merino, and other superior breeds of sheep, has demonstrated, that both the hills of New England and the plains of the west are highly favorable to this culture, and though the markets of Europe are now so well supplied from the product of that part of the world, that it may be some years before ex-

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ports of large value will be made from this country, yet it cannot be doubted, from the activity and zeal manifested on this subject, both in the culture and the manufacture, that the United States will soon be behind no other country in the production of all the best qualities, and wool become one of our great staples.

The farmers of our own State have, within a few years, turned their attention very largely to this branch of industry, and the exports from Michigan are greatly increasing in quantity and value.

The wool crop of 1850 amounted to 52,000,000 lbs., of which Michigan supplied 2,000,000 lbs., being the seventh State in the amount of its product.

Much attention has been given of late years to the raising of *cattle.* Many importations have been made of the best breeds, and the United States promises soon to be as well supplied with the best cattle, of all kinds, as any country in Europe.

Of the trade in animals the most important is that of *swine.* Ohio takes the lead in this, and assuredly "goes the whole hog." The exportation of pork and beef to foreign countries has for some years been of very considerable importance. Ohio exports pork to the value of $2,000,000, or nearly one-third the whole annual export of that article from the United States, which is a large proportion when we consider that the exports of pork and lard amount to three-fourths the aggregate of all the exports from this country of the product of animals.

Not less than half a million of hogs annually yield their lives for the public good at Cincinnati, and are made up into pork, hams, lard, oil, candles and soap; the hog being a powerful rival of the whale, in its capacity to afford means for the general enlightenment. For all which good things we are mainly indebted to our Indian corn; an article of diet which is at least properly appreciated by this portion of our population.

Having taken a general survey of the products of American soil, let us glance at the character of its cultivators.

In most, if not all civilized countries, the great bulk of the population will be found tillers of the soil. The proportion in England is but one-third, in France it is two-thirds, in Italy three-fourths. In the United States the proportion is still larger. The population engaged in agricul-

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ture, as shown by the census of 1850, was 17,500,000; that of all others but 5,500,000.

Of this large class of our people no one can fail to notice two broad divisions—that of the *planter* and the true *farmer*.

The introduction of slavery into America early created a distinction, which is still retained in the southern States. There the great business of cultivation being the raising of cotton, sugar, tobacco and rice, the numerous details of a general agriculture are mostly neglected. The cultivated lands are classed as *plantations*, rather than *farms*.

The character and habits of the planter also differ widely from those of the farmer of the more northerly States. He is enthusiastically attached to his native State and its "peculiar institutions," and is generally frank, hospitable, intelligent and liberal. Agriculture being the main pursuit, the planter has more influence than any other class, in forming the character of the State. This description has reference to the large landed proprietors only. The smaller cultivators are generally ignorant, and frequently but little elevated in character above the slaves.

You cannot but notice how large a part in value of the products of American soil is from the southern States. Surely, this should betoken the superior prosperity of the cotton growing States. But stubborn fact shows that in all the best elements of prosperity and thrift, the north has far outstripped the south. I need not point to a cause as obvious as is the result. It is *the contrast between slave and free labor*. The *former*, in the true sense of the term, is scarcely to be found south of Mason's and Dixon's line. The Virginia country gentleman may possess all the graces and private virtures so elequently depicted by Kennedy, in his well known "Swallow Barn." His hospitality may be unbounded, his social qualities unrivalled; but he is only the polished task-master over ignorance and degradation. The accumulation of wealth and the system of slave labor and its necessary comcomitants, render the southern planter aristocratic and haughty; too dignified to labor with his own hands, and too self-important to study improvement.

In striking contrast stands the farmer of the free States; independent, sturdy, rough-spoken, doing his own work, or at least taking the lead of his laborers, and urging them to activity by his example, rather than his command. Prizing the "common school" next to his "stated preach-

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ing," his love for his country and his native State is founded upon the benefits they confer, rather than any veneration for their antiquity. The tiller of the northern soil may have many of the ungraceful qualities so humorously set forth by Irving in his description of the Yankee farmer. Rude and unsocial he may often be, roving and unsettled in his habits, his home a log cabin unsheltered by a tree, or a shingle palace, half finished in the wilderness, with petticoat-stuffed windows, and festooned with strings of dried apples and peaches. Yet though wanting in the cultivated graces, we remember that these roving Yankees have, at least, the homely virtues of life; that they carry with them, to the remotest corners of our land, the same stern moral principles and independence, and the same love for the school book, which distinguished the founders of our liberty; that if they are often too restless to imbibe a taste for the more refined enjoyments of home, their brawny arms fell the ancient forests, and hew out the great highways for more advanced civilization; that to their intelligence and love of free discussion we may safely trust the interest and the honor of our common country. May their virtues and their hardihood ever be distinguishing traits of the American farmer.

But American agriculture does not depend for its highest success alone upon men who have been exclusively bred to the plow. Agriculture in America has engaged many of the grandest intellects of our country. While some of these have resorted to its pursuits as the most soothing and delightful relaxation from excessive mental toil, most of them have found in it a field for the exercise of their highest powers and their most enlarged sphere for usefulness.

At the head of this list stands the immortal Washington, who combined in his single person the qualities we most venerate in military, political, civil and social life. The labors of Washington in the cause of agriculture were not second to those he devoted to any other great interest of his country, and were bestowed with an enthusiasm which showed how ardent was his devotion to its principles and practice. Of other great statesmen, need I name Jefferson, Calhoun, Clay and Webster, as men to whom we are proud to point, as among the practical agriculturists of our country?

But among men of less political distinction, the farmers of America include a large body of highly scientific minds, that are every year

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greatly enlarging their numbers, and are daily advancing our agriculture to higher rank, as a science and an art. Such men have been derisively called "gentlemen farmers," but the laugh which was once attempted at their expense has become obsolete. To her "gentlemen farmers," high bred and titled as many of them are, old England owes as large a share of her prosperity as to any other class of her citizens. But there is this difference between the gentlemen farmers of this and any other country, that here they do not hesitate to work with their own hands, to put off the garments of mere gentility, and put on those of the practical husbandman. There is, indeed, nothing which speaks louder for our country's true glory than that her *gentlemen* are not ashamed of toil and toil-embrowned hands.

The age of the merely mechanical pursuit of agriculture in America has passed. *We have entered upon its scientific period.* It has now become a science, as well as a useful art.

The earliest attempts made by any of the States at treating agriculture as associated with the progress of science, was through *geological surveys.*

Massachusetts has the honor of first instituting such a survey, especially connecting the character, condition and improvement of the soils with the mass of facts which are embodied in the reports of the geologist. So important were the results considered to be, that New York soon followed, embracing in her plans the whole subject of the natural history of the State. Her 18 folio volumes already published, at an expense of more than half a million of dollars, are an honor of which the whole Union may be proud, and they have won for the science of this country a reputation throughout Europe, not behind the brightest labors of scientific England and France.

The several New England States copied the example to a limited extent, and Pennsylvania, South Carolina, Maryland, New Jersey, Ohio, and Michigan followed in the wake. But the financial crisis of 1838 left most of these States too poor to complete what they had so well begun; and in most of them, unfortunately, the mass of facts collected, remains still undigested into form, or connected into such a whole as is required by the true interests of science and of every branch of the national industry.

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These surveys so far as they have proceeded, have developed the relations of the rocks to the soils; the character and composition of the latter, the causes of their determination, and the mechanical and chemical means required to restore and maintain their fertile properties.

About six years ago a new step was taken in the application of science to the improvement of American agriculture, by the establishment of departments of agriculture at the colleges of Yale and Harvard, and the appointment of professors of "chemistry applied to agriculture." Professors Norton and Olmstead, who respectively received their appointments, were both young men, but they had expressly qualified themselves for this undertaking by a course of severe study in the best scientific schools of Europe. Their lectures, both before the college classes and various societies, have elicited the warmest approbation, and bear the means of widely disseminating, among our agricultural population, the principles of a science which is destined, by the benefits it will confer upon this branch of the national industry, to add millions to the wealth of our country.

I would by no means be understood to say, that previous to these movements, no attempt has been made to improve American agriculture. The number of agricultural publications, both periodical and otherwise, throughout our land, are an evidence of the wide interest which has long been felt in this subject. Hardly a State in the Uuion but supports one or more journals, devoted almost exclusively to agricultural improvement, and some of these are widely circulated through this country and even in Europe. They have kept farmers alive to the fact, that agriculture is not merely a mechanical occupation, to be practised in the same unvarying course, from father to son, and from age to age, but that it is both an *art* and a *science*, susceptible of constant and the most extended improvement.

But another and one of the most popular means for the advancement of agriculture has been found in *State* and *county agricultural societies*. Washington had, at the earliest period of our national history, advocated a national Board of Agriculture similar in character to those of some countries of Europe; but Congress, though often urged, has not yet seen fit to adopt such a measure.

To the Empire State, I believe, belongs the honor of being the first among our State sovereignties to establish a Board of Agriculture.

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This was effected in 1820. The early efforts of this society were devoted to the publication of an annual volume containing a variety of facts and essays relating to the subject. These volumes have yearly increased in interest, and in the importance of the matters embraced.

The interest felt in this society has been since greatly increased by the connection with it of annual fairs, held by turns in various parts of the State.

These exhibitions have assumed a prominent place among our institutions. They call out the best productions of the farm, as well as other branches of industry connected with the interests of agriculture, and are attended by crowds, not only of farmers, with their wives and daughters, but of all classes of the people.

The objects which these annual gatherings have in view, are, the general diffusion of a knowledge of the kind and character of our agricultural productions, and the stimulating of emulation and enthusiasm, by the comparisons which each is enabled to make. They also assume to considerable extent the character of fairs *in the literal and English sense*, or occasions for the barter and interchange of stock and other commodities. Should this character become prominent, it will introduce a new feature into the customs of this conntry, analogous to that of the countries from which we have derived many other customs, that by degrees have become incorporated into our American system.

Michigan was the first of the western States to erect a State Agricultural Society. It was founded in 1848, and held its first exhibition at Detroit, in the fall of 1849. Ohio followed the example in 1850, and Wisconsin and Indiana in 1851.

In regard to an institution whose operations are so fresh, and so familiar to you, as our State society, I will only add, that in connection with it, the commencement has been made of an agricultural library and museum, which under the energetic superintendence of our estimable secretary, are destined to add greatly to the interest and influence of the State society.

A "National Agricultural Society" has recently been organized at Washington by private enterprise, in the absence of Congressional action; which, it is hoped, will prove of great and general advantage, in properly combining, stimulating, and giving direction to the operations of the State associations.

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With all our efforts, this country is still behind Europe in the higher institutions, in botanical gardens, and other means for the advancement of agricultural science.

Our review of American agriculture would be imperfect without a brief allusion to *horticulture* in the United States. Within a few years this has arisen from a merely mechanical pursuit, to the rank of a science and a fine art.

The few hand books published in this country, relating to gardening, before the advent of Downing, consisted mostly of recipes for the cultivation of vegetables, with some imperfect rules for orchard culture, derived chiefly from English and Belgian works on these subjects. Scarcely any of these made allowance for the very different climate of the United States; which, in fact, requires in many respects, the very opposite management to be pursued here, from that which is bestowed by the English gardener. A few horticultural journals were doing something to disseminate a love for and a better information on these subjects.

The publications of Downing established an era in our country's progress. To the ordinary details of art, he added the more elegant principles of landscape gardening and rural architecture. Thoroughly imbued with the principles of these arts, which he had studied and matured from the best examples of Europe, and adapted to the peculiar wants and circumstances of his own land, and directed by an unrivalled taste and genius, he soon became an acknowledged leader on all these subjects, and his publications the standard works of the country.

About the same time the awakened love for the garden and the greenhouse, and the general feeling of our deficiency of knowledge, led to the formation of horticultural societies, chiefly in the cities. Among the farming population, horticulture was hardly known, beyond the raising of a few sorts of culinary vegetables and the most common fruits.

The Horticultural Society of Boston had for many years been in successful existence, and its annual exhibitions of the products of the gardens, orchards and conservatories which surround that wealthy and tasteful city, had aroused there a growing emulation, which has spread beyond the borders of New-England.

In no one direction is the horticultural emulation more manifested, throughout the northern, eastern, and middle States particularly, than in

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the culture of fruit. A larger selection and better kinds were demanded than the old nursery catalogues supplied. Much confusion of names also, and uncertainty of kinds, as well as imposition on the part of nurserymen, had arisen. Something toward improvement had been effected, through the efforts of various societies and journals, when the "Congress of fruit growers" was originated in New-York, and in 1849 became fully organized, under the name of the "North American Pomological Society." Its object is reform and certainty in the nomenclature of fruits, the collection and dissemination of information in regard to the best varieties suited to the various soils and situations of the country, and their proper modes of culture, and the banishing of the many comparatively worthless sorts that have long been cultivated as standards.

No such society as this exists in Europe, and I may safely say that in no country is the interest in fruit culture so active, no where else are so many trees sold, and so many orchards planted. The practical spirit of the country is engaged in this work, with a view to the profitable export of fruits—already a considerable business. Horticulture has thus assumed a commercial and national aspect.

Michigan is largely interested in this progress. Her insular situation, and the mild winters which the vicinity of the lakes occasions, admirably adapt her to the successful culture of all the best varieties of fruits which the temperate regions afford. Wisely, therefore, has horticulture assumed a prominent place at our great State exhibitions.

The culture of the *grape*, for domestic wines, has for some years engaged attention, in a few parts of our country, particularly in North Carolina, and on the Ohio. Extensive vineyards exist on the banks of this river, in which a large capital is invested, and American wine is already an article of commerce. These vineyards cover several hundreds of acres, and furnish annually about 50,000 gallons of pure wine.

The most temperate nations of Europe are those which inhabit the wine growing countries, and I doubt not that American wine will soon come in aid of the temperance cause, in banishing distilled and alcoholic liquors.

Like other new products, wine and its fruit will require years of culture and experience before we can hope to equal the best wine districts of the old world. So far, experience has demonstrated that the foreign

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varieties are not suited to our climate, but that we possess native grapes which promise fully to equal the best of Europe.

We are doing something in the way of repaying the old world for some of the luxuries which she furnishes to us. Fruit, chiefly apples, is exported to the value of $100,000 annually, and thousands of acres, throughout the middle and northern States, are being planted out to the pippin, the greening, and other choice kinds, which command a ready sale in the English market, at large prices.

The history of agriculture in America, and a comparison with the best examples abroad, show that the great defect of American agriculture is want of *system;* the systematic conduct of farming operations, with proper reference to all the circumstances of climate, soil and situation, of rotation of crops, drainage, thorough culture, and concentration and division of labor. Systematic agriculture involves many and great scientific principles, which are to be learned only by a thorough agricultural education. The merchant does not send his son to the counting room until he has first pursued such a course of training as the commercial college affords. The legal profession thinks the bar disgraced when a tyro is admitted to practice, who has not consumed the days and nights of years in study of the abstruse principles of law. How many farmers set this high estimate upon their profession? Is it not the custom, even of wealthy farmers, to send their sons into the field, there to practise an art of which they have not learned the first principles? And yet no trade or profession calls for such a wide range of scientific knowledge. The history of our own, as well as the agriculture of all other nations, confirms this fact.

The same history teaches that no husbandry can be long prosperous which takes everything from the soil, and gives back nothing in return; that if we would not see the once fertile fields of the older states, year by year abandoned for the unexhausted soils of the broad west, and these in their turn deserted because they no longer repay the labor of cultivation, a new system must be pursued.

That this deterioration has been and still is going on to a rapid and alarming extent, the statistics of agriculture in this country, already make too palpable. It is doubtless a startling fact to those who have not clearly traced the relations of cause and effect, that the pro-

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duce of the soil has been from year to year diminishing in nearly all parts of this country—slowly in some, rapidly in others.

The returns from the wheat growing States show that there has been a gradual decrease in the product of the soil, since the first settlement, from an average of 30 or 40 bushels per acre, to 10 or 15 bushels. The wheat crop of New England was found to have diminished one-half, between the census of 1840 and that of 1850, no doubt in considerable part from deteriorated soils.

"Of the twelve millions of improved land in New York, three millions barely hold their own, while not more than one million become richer, (as well improved land should do,) from year to year."*

To such an extent has this been going on in Virginia, that many parts of that oldest, and once most fertile and populous State, have become almost depopulated.

There are but two remedies—the usual one of emigration, or a more scientific mode of cultivation. The former is but putting off, or rather transferring the evil from the old States to the new. The application of science, as a means of restoring our exhausted soils, is attracting the attention of the most intelligent minds of the country, and with good success. The latest returns of crops show a gratifying gain in the wheat crop, in many of the old districts; mainly brought about by deeper plowing, by saving of manures, and a better system of rotation.

I would here introduce a word of caution to those who are looking for great results to agriculture from the patronage of the general government. I do not believe that government aid to this great interest will ever be afforded to any important extent. There is too much local jealousy, too many political interests to contend with. But the *State* Legislatures may, and ought to do much. As yet they have done little. Not an agricultural school exists in any of the United States. Our State Society, in the first year of its organization, took the lead in pressing this subject upon the legislature, by a memorial, setting forth the wants and the means of the State, and praying for an appropriation sufficient to found an "agricultural school" and a "model farm."

Thus far all efforts in that quarter have failed.† But the agitation of the subject was not lost, in its effects upon enlightened minds. With

*Dr. Lee.

† Since these remarks were uttered our State has made an advance step in the cause, by an appropriation for the above purpose.

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commendable zeal, two of our State insitutions—the University and the Normal School—organized branches of agricultural science. The organic laws of both provide for instruction in agriculture. The agricultural branch of the University was fully organised nearly two years ago, and the late Charles Fox received the appointment of lecturer, and subsequently "Professor of Practical Agriculture in its connection with Science"; while the professors in the departments of natural science already organized, added their voluntary labors. A course of lectures was thus provided for, and delivered before very respectable classes, some of whom were practical farmers. Prof. Fox also published a "Text Book of Agriculture," the first class book on this subject issued in this, or I believe, in any other country. It has filled an existing void, and added to the reputation of its author and of the Institution. In the recent death of Mr. Fox we mourn the loss of a man of great energy, perseverance, and practical experience. He possessed a mind thoroughly stored with the principles of agriculture and an uncommonly retentive memory.

In Europe, science has to be purchased at a high price, which but few can command. But to the lasting honor, and we trust the lasting advantage of our State, not only our common schools, but the University, are free to all, so that the poorest may reap, as well as the rich. Let us, then, bestow upon the youth of our State the inestimable advantage of a thorough course of agricultural education. Let us teach them to view the occupation of their fathers, not as a mere wearying, bodily labor, but as enlivened by the light of science and worthy of the highest exertions of the most intellectual minds. Thus shall our fair peninsula be crowned with a fame above that of the proudest kingdoms of the world; with laurels won in fields unwatered by human blood, and betokening peace and plenty, with all their countless blessings, to the latest generations.

In recommending the pursuit of agriculture to a wealth-seeking community like ours, the inquiry will at once be suggested, whether the profits of farming are sufficient to justify men of highly educated minds in adopting it as the business of their lives. I allude to the *pecuniary* profits alone, for it would be easy to show, (did our time permit that pleasing task,) how that many ulterior considerations, such as health and

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the better enjoyment of it,and freedom from mental disquietude, constitute inducements of the strongest character.

One thing is here to be noticed; that, though the profits of farming upon the capital invested, as compared with those looked for by mercantile men, are confessedly small, yet the investment is, in ninety-nine cases out of a hundred, vastly more safe, and the returns more regular. Land is not a fugitive property. It can neither run away, nor be burned up.

It is also to be observed, that in all good agriculture the land upon which the care and labor of the farmer are bestowed, is, by the continued new investment made in improvements, constantly increasing in value, and many farmers, who have struggled for years with small crops and poor prices, at last find themselves rich simply from the enhanced value of their farms.

Compare one end of the country with the other, we find no class in the community better off, with more of the solid comforts and even the better kinds of luxuries, than the farmers; and where science and skill are exercised, they never fail, either in the old States or the new, to become comparatively wealthy, while the population who become so in commerce and by professional labor is invariably small.

No one can fail to be impressed with a very important consideration, operating upon the agricultural prosperity and prospects of the United States, derived from the circumstances of the proprietorship of the land of this country.

The old feudal tenure, which so long and so universally prevailed, and is not yet actually extinct throughout Europe, placed the fee of the land in the hands of the few—the noble and the privileged classes—who let out their occupancy and use to their vassals or tenants, but never alienated the title. In England, to this day, the proprietorship of the farms is seldom found in those who cultivate them.

The genius and policy of the American government early discouraged the accumulation of land in the hands of large proprietors, as well as the entailing of lands by laws of primagenature, so that it is impossible for estates to accumulate in one farm, to anything like such an extent as exists in Europe; while the ownership by the United States government of the greater part of the public domain, and a wise system of land laws, the most important of which is the low value at which the public lands are held, enable any person of common abilities

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and industry, with at most, a very few years' labor, to become the owner of the soil he tills; "lord of all he surveys," over a half mile or more of territory. The labor of his own hands has effected this happy condition. No imperious lord exacts his hard earned profits, at once the boon of a pampered aristocracy and the badge of his own servitude. No tithing of his produce is demanded to support a church not of his own choosing. What Baron in his hall, surrounded by hosts of dependent vassals, was ever so truly privileged, as the free-born, independent, American farmer, upon his own fair, broad acres, waving with golden crops, beneath a clearer than Itallian sky; where famine is unknown, and where competence, if not wealth, is the never-failing reward of labor.

One other consideration shall close our view of American agriculture, and that is, the advantage possessed by the United States in being independent of the world for all those products which are necessary to individual and national prosperity.

Look at England, who imports from foreign countries those elements upon which her national strength is mainly built, and which are the very life's blood of her population! What would be her condition should a general war shut these out from her ports? What would become of the millions of her manufacturing population should she be suddenly deprived of American cotton? How many thousands more would have died of starvation in poor Ireland, but for the tribute of American bread?

These misfortunes can never come to us. Our commerce may be crippled—it may be driven from the ocean, by some new "holy alliance," and though thousands would suffer, and the luxuries of many more thousands be abridged, yet our fertile fields would continue to yield all the necessaries of existence, and the nations which should commit the outrage would be the first to suffer the evil consequences of their own deed.

With a climate and soils suited to every variety of product that a civilized people require—with cheap lands, light taxes, free schools, and just laws, what more is necessary to constitute this the most favored agricultural community on earth? Nothing more, than to avail ourselves of the benefits of science, and to establish and maintain those institutions whose object is to diffuse a correct knowledge of the laws of nature—the statutes by which God governs the earth.

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STATE AGRICULTURAL SCHOOL.

The following proceedings with regard to the establishment of a State Agricultural School in Michigan having taken place in the year 1855, perhaps it will be thought out of place to record them in the Society's Transactions for 1854. But it being thought advisable to publish these proceedings as early as practicable, we insert them in this volume.

At a meeting of the Executive Committee held at the Society's rooms in Detroit, Dec. 12, 1854, the Secretary stated to the committee what had heretofore been done relative to the establishment of an Agricultural School, and urged the committee to consider the matter and take some definite action thereon. The subject was fully discussed by the committee and such action taken as led to the passage, by the legislature, of a bill to establish a State Agricultural School and Model and Experimental Farm. In accordance with the provisions of this act, the executive committee convened at Lansing, on Tuesday the 12th day of June, 1855, for the purpose of receiving proposals for lands upon which to locate said school and farm, and to make a selection for such site.

Present, the President, A. Y. Moore, Schoolcraft.

Executive Committee—

John Starkweather, Ypsilanti.

S. M. Bartlett, Monroe.

James Bailey, Troy.

Payne K. Leach, Utica.

Justus Gage, Dowagiac.

Secretary—J. C. Holmes, Detroit.

On the 12th, at 3 o'clock P. M., the committee met in the Representative Hall to hear an address from the Secretary. A large number of ladies and gentlemen were present from Lansing and vicinity.

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ADDRESS delivered before the Executive Committee of the Michigan State Agricultural Society, and others, at Lansing, June 12th, 1855, by J. C. Holmes, Secretary of the Society.

LADIES AND GENTLEMEN—

The occasion of the meeting of the Executive Committee of the Michigan State Agricultural Society here to-day, is to select and purchase a tract of land for a model and experimental farm, upon which is to be established a State Agricultural School, and in behalf of the Executive Committee, also of the State Board of Education, who are to have the direction of the school, I tender to you their thanks for the interest you manifest in the encouragement of the enterprise, by your presence here.

As the Secretary of the State Agricultural Society, it becomes my duty to lay before the Executive Committee, somewhat in detail, a history of the proceedings that have led to so desirable a result as the passage of a law, by our State legislature, for the establishment of a State Agricultural School in Michigan, also to lay before them such information relative to agricultural schools as I have been able to collect.

The subject may be a dry one, nevertheless it is an important one, therefore the remarks I wish to submit for your consideration will be somewhat extended, yet as brief as possible, and I hope not wholly uninteresting to you.

I doubt not that most, if not all of you, are aware that in the year 1849, and each subsequent year, the executive committee of the Michigan State Agricultural Society, at their annual meetings have discussed the subject of founding a State Agricultural School and an experimental and model farm.

A leading desire of the committee, and the society, has always been that a school and farm of this character should be established in Michigan and that it should ultimately, if not in the beginning, be wholly independent of all other institutions. This I say has been a leading desire of the executive committee, often expressed; also of the farmers of the State, as far as I have been able to learn their wish respecting it.

While none doubt the utility, practicability, and indeed the necessity of gaining a more thorough scientific and practical agricultural education than we now possess, there has been, and still exists, a difference of opinion respecting the best method to pursue in order to obtain that ed-

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ucation. Some are in favor and urge the establishment of an agricultural department at the State University; others are in favor of an agricultural department at the Normal School; while a great majority, as I have stated, are in favor of an independent institution.

It has been urged by some that the revised constitution of the State requires that when an agricultural school is established, it shall be a department or branch of the University. This is undoubtedly an honest, but it is a mistaken idea. The constitution, while it provides for agricultural education, does not say it *shall* be a department, or a branch of the University. For proof of this assertion I refer you to the constitution itself. The 11th section of Article 13, reads as follows:

"SECTION 11. The Legislature shall encouage the promotion of intellectual, scientific, and agricultural improvement, and shall as soon as practicable, provide for the establishment of an Agricultural School. The Legislature may appropriate the twenty-two sections of Salt Spring lands now unappropriated, or the money arising from the sale of the same, where such lands have been already sold, and any land which may hereafter be granted or appropriated for such purposes for the support and maintenance of such school, and *may* make the same a *branch* of the University, for instruction in agriculture and the natural sciences connected therewith, and place the same under the supervision of the regents of the University."

I was informed by a member of the convention for revising the constitution, a worthy and honorable ex-president of the State Agricultural Society, that it was the wish of those at whose suggestion this section was placed in the constitution, that it should require the school to be established separate from and independent of all other institutions, but several of the members thinking it would be economy to connect it with the University, were unwilling, under the then existing pecuniary embarrassed situation of the State, to try the experiment of establishing an independent Agricultural School, therefore the matter was compromised and the section adopted as it now reads.

The discussion of this question in convention was very interesting, and may be found in Sherman's School Report for 1842, pages 246 to 253.

This subject has not ceased to engage the attention of the people of Michigan, and the more it has been considered and discussed, the stronger

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has become the conviction of those most interested in the matter, that in order to have it succeed and become of great practicable utility to the farming community, the Agricultural School should be founded upon a basis of its own, and they have so decided the question. But, while this is the decision, they also express a wish that instruction in scientific agriculture shall be given in the State University and the State Normal School, so far as may be without detriment to those institutions.

Perhaps I cannot better state the views of the Executive Committee than by quoting the following resolution, drafted by the gentleman just quoted and adopted by the Executive Committee at their annual meeting in Dec., 1852:

Resolved, That Messrs. Dort, Shoemaker and Moore, be a committee to urge upon the legislature the propriety of carrying into immediate effect the 11th section of the 13th article of the constitution of the State, relative to a State Agricultural School, with advice that it be adopted as a branch of the University, and placed under the control of the Regents, that such instruction and lectures of the professors of the University as is practicable and desirable for the Agricultural School shall be secured; that such measures be taken as will lead to the final establishment of a model and experimental farm; that the permanent location of said school and farm should be upon a tract or tracts, not less than 640 acres of University lands, which henceforth should be reserved from sale; and that in the view of this society the contemplated school and farm should not be established in immediate proximity to any existing educational institution; and that the income of the Salt Spring or other lands named in said section of the constitution be inviolably set apart for the support of said school.

This resolution it will be noticed points to a temporary connection with the University, and the final establishment of an independent Agricultural School; and that it shall not be established in immediate proximity to any existing educational institution. A petition was presented to the legislature in accordance with this resolution, but the legislature of 1853 did not comply with the request of the Executive Committee.

As time has rolled on the State has extricated herself from her pecuniary embarrassments, and can no longer plead poverty, or urge undue economy in providing for scientific and practical agricultural education;

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therefore, you gentlemen at your annual meeting in December last, having this subject under discussion, adopted the following resolutions:

Mr. Bartlett offered the following as a substitute for the resolution of Mr. Gage:

Resolved, That it is the sense of this committee that an agricultural school should be entirely separate from any other institution.

Adopted.

On motion of Mr. Gage,

Resolved, That a committee be appointed to draft a petition to the State Legislature, praying that honorable body to take into consideration the propriety of appropriating a sum of money sufficient for the establishment of an Agricultural School, with the addition of an experimental farm, where experimental and theoretical agriculture will be taught on a scale equal to our best colleges.

The committee appointed for this purpose reported the following petition which was adopted:

To the Honorable the Legislature of the State of Michigan:

The inhabitants of County represent, that

Whereas, It is admitted by all that Agriculture, in connection with Domestic Manufactures and the Mechanic Arts, constitutes the basis upon which rest the prosperity and stability of the whole business community: *And Whereas*, It is evident to all enlightened minds, that these all important branches of human industry, can, in no way, be so well "encouraged and promoted" as by a uniform and general system of agricultural education, commensurate to the wants of those who till the soil, and create, by their industry and labor, material for the supply of human want; *And Whereas*, by a wise provision of the Constitution of the State, (Art. 13, Sec. 11,) it is made the duty of the Legislative body "To encourage the promotion of *intellectual*, *scientific*, and *agricultural improvement*;" and has, further, made it *imperative* upon the Legislature, "as soon as practicable," to *Provide for the establishment of an Agricultural School*, setting apart funds for the permanent endowment and support of the same;" and, believing, as we do, that the time has now arrived wherein it is "practicable" for the Legislature to carry into effect the above wise designs of the Constitution—the State being in possession of ample funds and resources for such a purpose—do request that your honorable body will, without unnecessary delay, make suitable

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appropriations, by law, for the purchase of a tract of land, sufficient, and suitable for an experimental farm; and for the erection of suitable buildings thereon, for an Agricultural School, placing it upon a basis of its own, separate from any other institution of learning, and for the endowment of the same in such manner as shall place it upon an equality with the best Colleges of the State. And your memorialists will ever pray.

Resolved, That Mr. Bartlett be a committee to draft a bill for the establishment of an Agricultural School, to be presented to the Legislature, in accordance with the views of this committee, as by them here already expressed.

A bill was accordingly drafted and introduced into the Legislature at its last session, and with one or two amendments has become a law.*

You will perceive that the law authorizes you to select, subject to the approval of the State Board of Education, a location and site for a State Agricultural School, within ten miles of Lansing, and subject to such approval, contract for and purchase for the State of Michigan, such lands, not less than five hundred acres, nor more than one thousand acres, in one body, for the purpose of an experimental farm and site for such Agricultural School: Provided, that the amount to be paid for such farm shall not exceed fifteen dollars per acre.

For the purpose of attending to the duties herein named you have now met together.

Your secretary has advertised for proposals and received several, all of which are submitted for your consideration.

Here allow me to state that I have received from Prof. Winchell, of the State University, a communication with a request that I would lay it before you. As it will not be out of place at the present stage of our proceedings, and although we consider the question with regard to the Agricultural School being established upon its own basis, fully settled, yet as the object of the writer of this paper is to lay before you his views in favor of connecting the School with the University and not making it independent of that institution, I wish now to comply with his request, and will now read the following paper by Prof. Winchell:

* See the law on page 6 of this volume of Transactions.

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ON THE LOCATION OF THE AGRICULTURAL COLLEGE.

I have watched with great interest the progress of those events which have resulted in a legislative act, establishing an Agricultural College in Michigan, and locating it within 10 miles of Lansing. I have not participated in any action, or discussion, which has been connected in any way with the production of this result. I believed that the entire question would be thoroughly canvased, and that the best course would be pursued which the experience and light of the nineteenth century would be seen to mark out.

The result is one over which the friends of education, and especially those who appreciate the great relative importance of agriculture to our country, may rejoice. Michigan stands eminent among the States for the appreciative and liberal action of her recent Legislature, in making provisions for the technical education of the farmers of the State.

But after all, I cannot believe the best thing has been done. The nature of our agricultural education is such, that I have no doubt the ends of an Agricultural College would be best attained by making it a department of the University. Many will be ready to reply, when I make this avowal, that I am influenced by interested motives. Though I deny it, I shall not be believed, and I shall therefore proceed to show that if I *have* any interest in the union recommended, it is identical with the interest of every good citizen of the State.

I. Among the causes which have led to the destined organization of the Agricultural College, I suppose the following to have been chief:

1. *Jealousy of Centralization.* The American people have run into a ruinous extreme through fright at this bugbear. The citizens of Michigan manifest too much of a disposition to distribute the different public institutions of the State among the different towns of the State, and have advanced the sentiment that the University, as it now exists, is as much as Ann Arbor is entitled to. It seems to me that any mind which keeps the greatest general good steadily in view, will give the last place to any such considerations. There is likewise entertained in America, and especially in some of the states, a jealousy of all great central institutions. They convey the idea of local power and influence, which is abhorrent to the American mind. But here is a sad want of discrimination and good reasoning. Centralization of educational resourses is a far different thing from centralization of civil power and its

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applicances for controlling the masses. Since centralization tends to the growth and development of the centralized elements, we ought by all means to centralize as much as possible those agents and agencies which are closely allied to each other in their nature and their objects. They thus react upon, and nourish each other, and the greatest results will be attained where the greatest forces are in this way created. Agricultural science is but the application of the abstract or general science which must enter into the course of instruction pursued at the University. Scientific Agriculture is as pertinent to the University as Medicine or Civil Engineering. I shall advert to this matter again.

2. Another reason which I suppose to have operated upon the minds of the Executive Committee of the Agricultural Society, and upon others, is *the fear that a sufficiently technical education would not be furnished by the University.*

I am inclined to think that such a fear would not be realized. It is evident, however, that all which has yet been done (though a noble plan was projected by the lamented Professor Fox) has by no means come up to the requirements of the farmers of the State. But it must be remembered that the University has been struggling under embarrassing circumstances—that no scheme of agricultural education was drafted until a recent period, and that the opportunity has not been offered to show what the University is able to do even without any special appropriation for agricultural education. It must also be admitted that an Agricultural Department of the University, to become efficient and useful, must have one or two professors especially assigned to it. But after two professorships devoted to the *specialities* of agriculture shall have been created and properly filled at the University, I have no doubt that the student of agriculture will be able to learn more, and to learn it more thoroughly at the University, than in the contemplated Agricultural College. For the purpose of furnishing our young farmers with the requisite instruction in *general* science, there is no real necessity for duplicating professorships of "Natural Philosophy, Chemistry, Botany, Geology, Minerology, Meteorology, Mensuration, Leveling and Political Economy." All these subjects are as well taught in the University as they can be in any Agricultural College. All that is needed more is the application of these to agriculture and the introduction of the "Veterinary Art," practical and experimental farming, and certain other specialities

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required to make the educated agriculturist. The endowment intended for the Agricultural College would be sufficient to render it as a department of the University, a most efficient auxiliary in promoting the agricultural interests of the State. Without venturing to say what it will be able to accomplish divorced from its natural alliances, I have not the least hesitation in affirming my belief that its efficiency would be very greatly enhanced by connecting it with the University. The endowment contemplated for the separate organization could then be devoted entirely to the experimental farm, and the specialities of the agricultural course. With such provisions I cannot conceive how any one can doubt the competency of the University to furnish an agricultural education as practical and as thorough as any separate organization.

3. Another consideration which might very naturally have operated to produce the organization of the Agricultural College, is the *fear that if connected with the University it could not be sufficiently under the control of the State Agricultural Society.*

I believe most of the schemes heretofore broached, contemplated placing the Agricultural School under the supervision of the Regents of the University, to whom it should sustain the same relation as any other department of the University. I conceive it to be not only natural but right that the State Agricultural Society should strive to retain the State Agricultural School under their control. They are supposed to understand best what the agricultural interests of the State demand, and ought to hold the power to prescribe the regulations of the Agricultural College. But it would be a pity if the exercise of this right must be purchased with the sacrifice of all which will be lost by detaching the College from the University. I shall make some suggestions before I close in accordance with which I conceive all these advantages may be gained with the sacrifice of none.

II. Having given briefly my reasons for dissenting from the premises which have led to the separate organization of the Agricultural College, I will now proceed to state my reasons for advocating its connection with the University.

1. *Such a connexion would cause a great saving in the first outlay.*

It would save the expense of purchasing the site, and erecting the buildings. The interest on this outlay will be sufficient to support one or two professorships, even if the expenditure is reduced to a minimum.

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It would save the expense of providing library, museums, and apparatus. To accomplish all that is contemplated in the act establishing the College would require a great outlay in this direction—at least enough to support one or two more professorships. The sciences most nearly related to agriculture are the natural sciences, and it is precisely these sciences which demand for their successful prosecution the largest expenditures for collections and apparatus. The law prescribes the study of geology and minerology, but how meagerly must these branches be pursued in the absence of geological and mineralogical collections. Such collections would need to be furnished, or the instruction would inevitably be of an inferior order. But these collections *already* exist at the University, and what is the need of duplicating them? But they *cannot* be duplicated. The collections of the State Geological survey are deposited at the University, and as there has been but one survey, there cannot be any similar collections deposited with the Agricultural College.

All that I have said above, relative to geological and minerological collections, applies literally to collections of quadrupeds, birds, insects and plants. Even were it possible to give the Agricultural College a corresponding outfit, the attempt would be an unnecessary and unwarrantable expenditure.

But the law contemplates instruction in "Natural Philosophy" and "Levelling." These happen to be precisely the branches embraced in one of the professorships at the University, and while all the applicants for instruction in these branches can be accommodated at the University, why the necessity of endowing another professorship in the same department, and purchasing another suite of Engineering and Physical apparatus?

Chemistry is another of the branches contemplated by the law and indispensable to the scientific farmer. But the erection and furnishing of a chemical laboratory is necessarily expensive, and if not made so at the Agricultural College it cannot be more than a fifth rate affair. All that could be done at least, would be simply the duplication of apparatus already furnished or to be furnished in the University. How much more reasonable to unite the resources of the two, and create one Laboratory more ample and therefore more serviceable than either of the two. By this means agricultural students would derive the bene-

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fits of the University fund, and the undergraduate students would also receive a benefit from the agricultural fund.

The same considerations apply to the library required for the uses of the Aricultural College.

2. *Such a connection would cause a great saving in the subsequent support.*

I have already mentioned the fact that the outlay required for the site, buildings, museums, philosophical apparatus, laboratory and library of the Agricultural College, all of which would be saved by its connexion with the University, will be sufficient to support three or four professorships. But in addition to this the Agricultural College will require, to do the work which the University now does, at least four professorships in the different branches of *general* science, besides the two professorships above referred to devoted to agricultural specialities, not now treated in the University courses. This amounts to the endowment of seven or eight professorships which will be thrown away upon the Agricultural College, leaving the special agricultural professorships still to be provided for. It is equivalent to the squandering of $116,000 to $133,000—that being the sum which, at 6 per cent. would support seven or eight professorships at $1,000 each. This is a sum which I presume the friends of the college have never thought of expending to render the institution as perfect as possible. It was stated in the constitutional convention that the proceeds of the unappropriated salt spring lands—estimated at that time at $54,769 25, when the lands should be all sold—would be "a sum fully adequate to establish on a stable and respectable basis the institution contemplated." The legislature has appropriated for this purpose the remaining 22 sections of salt spring lands, amounting—after deducting 735 acres, the deficit of 72 whole sections granted by the general government—to 13,345 acres. The average price at which these unappropriated lands have been selling is about $4 37 per acre. If this average should remain the same until the 13,345 acres are entirely sold it would make the endowment of the Agricultural College $58,317 65. This, therefore, is the amount which the legislature intended to appropriate to this object. [Shearman, Pub. Inst., p. 247.] The editor of the Michigan Farmer has stated [Vol. 13, No. 1, p. 4, Jan., 1855] that "the establishment of an institution that would supply our present wants ought not to cost over $50,000." It

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will be seen that the largest of the above named sums is only half the amount which will require to be expended before the Agricultural College will be enabled to teach even the sciences which are now taught at the University.

The editor of the Michigan Farmer has, indeed, also stated that "the annual cost of an institution like this, after it reached its highest possible development would not be over $12,000 or $15,000. This estimate, after making due allowance for the profits, if any, of the experimental farm, is incompatible with his other estimate, for an income of $12,000 or $15,000 represents a capital at 6 per cent, of $200,000 or $250,000, and this is the endowment which according to his estimate must exist as productive capital after the erection and furnishing of the buildings. If he could have supposed the experimental farm would yield a profit of $1,500, this deducted from the mean of his last estimates leaves $12,000 representing a working capital of $200,000. Assuming as before that the buildings, apparatus, museums, library and farm will not cost less than $50,000—his estimate makes it appear that $250,000 will need to be invested in the Agricultural College to bring it to practicable perfection, a sum four times as large as the Legislature has provided. It must be remembered too, that the College will not come into the enjoyment of the full sum provided for an unknown length of time to come.

Should it stil be contended that $50,000 or $60,000 will be sufficient to establish and endow the agricultural college, it will be very easy to calculate what facilities the income of such an endowment will secure. I see great reason to fear that an institution built upon such a basis will only serve to add new significance to the already approbrious by-word—"a western college."

Another item which will enter into the cost of supporting the Agricultural College, is the necessary incidental expenditures which will not fall much short of $800 or $1,000 per year, besides the farming expenses. The same financial and other managerial officers might be made to answer for the College and the University—the same janators and librarian—the same office expenses, &c.

3. My third reason for advocating the connexion of the Agricultural College with the University, is the belief that *after the college comes into full operation, and the possession of all its contemplated advanta-*

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ges, it must necessarily afford instruction somewhat inferior to that afforded by the University.

This belief results first, from the fact that most of the material and appliances for the prosecution of *general* science will always be superior at the University in consequence of its present superior furniture, as well as its superior ability to increase it in the future as circumstances may demand. As to the agricultural specialities, since they belong to a complete course of University studies, it is probable they will likewise be provided for notwithstanding the Agricultural College. This, however, would only aggravate the false economy of the Agricultural College. All the general appliances of learning already exist at the University, and the special ones could just as cheaply be created here as anywhere else. The State only needs to do this to furnish all the advantages of the Agricultural College.

In the second place, the learning, ability and experience of the professors employed in the Agricultural College for the purpose of giving instruction in *general* science will be likely to be inferior to the learning, ability and experience found at the University. This might not always be the case. There might, indeed, be always one or two exceptions, but the superior inducements to professional men which must confessedly exist at the University, would, as a general thing, command the most desirable talent.

4. My fourth reason for objecting to the divorce of the Agricultural College from the University is that *the particular principles of Scientific Agriculture constitute properly an inseperable part of University instruction.*

This fact has already been alluded to. Agricultural Chemistry follows as naturally after the principles of Chemistry as Civil Engineering does after the principles of Mathematics. The Veterinary Art is as strictly an application of the principles of Botany, Chemistry and Animal Physiology, as Pathology, Therapeuties, Materia Medica and Pharmacy. To appoint one set of men to teach Botany and Chemistry to the medical students of the State, and another set of men to teach precisely the same things to the agricultural students of the State, seems to me a folly that hardly requires exposure. It would be no less absurd to build and officer one institution for the instruction of the deaf and

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another for the instruction of the dumb, while both require to be taught precisely the same knowledge.

Better than a separate organization of the Agricultural College would be its connexion with the Normal School. But this alliance would be far less appropriate than the one advocated. Agricultural science is neither an element nor an application of the science of paedagogy. It is the province of the Normal School to afford instruction in all those branches required to make an accomplished teacher. Agriculture could hardly come within the scope of this requirement. But the University, whose province it is to teach all science, claims naturally the Agricultural College. The school of medicine has been connected with the University because the University possesses ample facilities for giving instruction in those sciences which find their application in medicine. The school of civil engineering has been connected with the University, because civil engineering is a practical application of the algebra, geometry, and mechanics taught at the University. On the same grounds should the school of agriculture be connected with the University; and it is not so much the interest of the University which demands it as the interest of the Agricultural School and the requirements of a sound economy.

5. An additional reason for advocating the union of the Agricultural College with the University is that *such a course would tend to the centralization and reproduction, instead of the dispersion and dissipation, of our educational resources.*

As already stated, I suppose this very tendency to form one of the popular objections to such a union. I admit that so far as regards the increased advantages which the city of Ann Arbor would derive, that is a mere accident resulting from the nature of things, and can add nothing to the efficiency of the forces concentrated there. It is a species of monopoly of advantages which is inseparable from centralization. But it must be remembered that any accidental benefits which Ann Arbor might derive, would not detract from the advantages already enjoyed by the other towns of the State. They are still left unharmed. Neither, if the Agricultural College is distinct, can the local advantages of its presence be enjoyed by more than one town. All the other towns will be no better off than if the College were located at Ann Arbor. But the growth of any town of the State from any such influence as

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the presence of a public institution, is a general benefit to the State. Otherwise, the general interest would be best promoted by legislating against the particular interest of each of the towns of the State. Whatever benefit Ann Arbor might receive from the presence of the Agricultural College redounds as much to the general welfare of the State as if the benefit were bestowed upon Lansing, or any other town. Neither can it be reasonably said in denial that the region about Ann Arbor needs less the developing influence of a public institution than the region about Lansing. The wilds of our State are not to be developed into cultivated and productive fields by sending weakly agricultural colleges among them, but by sending among them the well trained *graduates* of strong and healthy Colleges.

But suppose the union of the Agricultural College with the University should prove a benefit to Ann Arbor alone, and that the State at large could not possibly participate in that benefit, while by locating the College at Lansing, not only the Capital, but, secondly, the entire State would be benefitted by such location. The question has to be solved, whether the total advantages of such location would equal the advantages already pointed out, of a connexion with the University. I have already shown that the site, buildings, professorships of general science, &c., would cost at Lansing $116,000 to $133,000. The mean, which is a low estimate, is $125,000. Two additional professorships of special science would require $33,333, making a total of at least $158,000. Shall this sum be expended to purchase the incidental advantages which Lansing, and reflectively, the State might receive, while $33,000 would procure the same education at Ann Arbor. In short, will the State be $125,000 better off by placing the College at Lansing than by placing it at Ann Arbor?

The truth is, that the benefits conferred upon the neighborhood of the location of any public institution are in comparison but very trifling considerations, and it is in reality an unworthy act for the citizens of a particular neighborhood to attempt to sacrifice a great public interest to their own local aggrandizement. I do not say this in a spirit of fault-finding. I believe that when such attempts are made, people do not generally realize the extent of the mischief they are working. I greatly regret that the benefits of the centralization of our educational forces cannot in the nature of things be secured without liability to these incidental objec-

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tions. But it is rarely the case that we are permitted to enjoy any unsullied good, without the accidental accompaniment of some evil. But *these* evils ought to be endured for the sake of the paramount good. Our railroad corporations do not hesitate to concentrate their shops for mechanical and manufacturing operations in a single advantageous point. The benefits of centralization in such a case are material and palpable, and every one sees them, and sees how unreasonable would be the demand for a so-called democratic distribution of the different related operations. But there are similar correlations and dependencies in the different operations of educating, which require the related processes to be conducted in proximity to each other. The citizens of the State have as much reason to complain at seeing the workshops of their railroad system concentrated at Detroit, as at seeing the workshops of their educational system concentrated at Ann Arbor. There is a perfect plenty of conditions—except that in the former are forged material and perishable products, and in the latter immaterial and imperishable products. We every day acknowledge to some extent the advantages of centralization. Our very civil and social existence depends upon it. We all admit that the various offices of the State government ought to be at the capital of the State. I have seen it stated, for the same reasons, that the state prison ought to be located at the capital. We should pronounce it an act of consummate folly and extravagance to locate the House of Representatives at Lansing, the Senate at Detroit, the Treasurer's Office at Ypsilanti, the Land Commissioner's office at Niles, the Attorney General's at Grand Rapids, and the Superintendent of Public Instruction's at Mackinac—to furnish separately the requisite buildings for each of these branches of the civil government—to duplicate the State Library for each, and furnish each with the service which is now performed at Lansing, at once for all. We perceive centralization to be essential in this case, and we submit with *a degree* of willingness to the necessity of things; and since the centralization must take place some where, we unite as *gracefully as possible* in selecting Lansing for the favored spot. We acknowledge also, that in these affairs centralization is a source of economy. We see that with a given total expenditure of money, greater efficiency can be given to the several branches of the civil government. We conclude, in short, that centralization is a source of power. But while we are willing to resort to the centralization of

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the different offices of the civil government for the purpose of developing, economically, sufficient civil power to carry on the public affairs of the State, we are very properly jealous of that power and restrict its increase beyond the limits required for the accomplishment of its legitimate objects. But why are we jealous of it—and why do we restrict its increase? Simply because the people have no use for such surplus power, and, besides that, it is a very dangerous agency to have in existence among a free people. But I would ask, do the same reasons exist for entertaining a jealousy of educational power? Has the accumulation of the power to educate the youth of our country ever been known to endanger the liberties of its citizens? I think not. On the other hand, there is no danger that our intellectual agencies will ever become too strong. Educational power is not like civil power, a necessary evil, but an essential good. Hence the more we have of it the better. It behooves us, throwing aside all local and narrow views to resort to centralization or any other means which good economists and patriotic citizens can devise for developing our educational power to the utmost practicable limit. When we become jealous of educational power, we had better, to be consistent, abolish all centers of power and fanatically rob ourselves of all the benefits which the world is now receiving from united effort and voluntary association. We had better tear up the Central and Southern Railroads and allow each little town to construct its own particular road to the principal marts and have its own little workshop at its own little terminus. This system would cost vastly more, but we should avoid all "monopolies" and centralized power, and each town would derive an equal benefit from its blacksmith's shop at the home end of the line.

Such are my reasons for advocating the connection of the Agricultural College with the University. I am not so situated that I could be materially influenced by selfish or local considerations in coming to these conclusions. I believe they are based upon the essential relations of things. I could not think otherwise without doing violence to the convictions of my judgment.

It is worthy also of mention, that the friends of the Agricultural College have generally advocated its connection with the University. In a memorial to the legislature of 1850, the State Agricultural Society say "the institution should be attached to, or form a branch of the State

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University, as is contemplated by the charter of that institution." [Shearman, Public Instruction, p. 206.] The general tenor of the debates on this subject which took place in the constitutional convention shows it to have been designed that the Agricultural School should form a branch of the University. [Ibid, p. 246.] The constitution also provides (Art. 13, Sec. 2,) that the legislature "may make the same a branch of the University." I cannot but think these earlier judgments are sound, and that the Agricultural Society might still retain its proper control over the Agricultural School, even if organically and locally connected with the University.

III. The following plan is suggested as one in accordance with which the Agricultural College might derive the benefits of a connection with the University, and the agricultural interests of the State, the benefits of the superintendence and control of the State Agricultural Society. The object has been to adopt the existing organization of our educational affairs to this object:

1. Let the Regents of the University continue in their present relation to that institution, but let them be in relation to the Agricultural Department merely an executive committee, acting under the instructions of the State Agricultural Society.

2. Let the Board of Education retain its present relations to the State Normal School. Their jurisdiction might be restricted to this or extended to the Agricultural College as suggested below.

3. Let the President and Executive Committee of the State Agricultural Society be constituted the Directors of the Agricultural College. Let them have power to prescribe all the provisions of the College, and to incur expenditures annnally in behalf of the same to an amount within the limits of the annual income of the fund created for the College. Whatever expenses might be incurred by the Regents of the University, in consequence of the requirements of the Agricultural College, should be considered as payable out of the income of the College. If deemed more expedient, a joint board might be constituted of these Directors and the State Board of Education.

I am convinced that there need be no collision between the Regents and the government of the Agricultural College. The powers and jurisdiction of each might be so defined that the University would yield the advantages of its Cabinets, Library and Professorships to the

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Agricultural College, without detriment or expense to itself, and the Agricultural College would receive these benefits without losing its individuality or its subserviency to the agricultural interests represented by the State Society.

But it will be said that all such projects are now excluded from consideration; that the Legislature has passed its enactments and the location of the Agricultural College is fixed. I think otherwise. What the Legislature has done has been at the instigation of citizens of the State, and by the same instigation that action can be altered or repealed. Another Legislature may make a different enactment, and would do so if the agencies by which they should be operated upon were directed to that object. When the citizens who are interested in the Agricultural College are convinced, the end, I conceive, is nearly gained.

But such a course, it will be further urged, will delay at least two years the establishment of the College for the attainment of an object still uncertain. This is something of an objection, it is true. But let us remember the evils of delay are only of two years continuance, while the evils of an unfortunate location will be enduring. But there need not be an actual delay of two years. If the Executive Committee, and the Board of Education are agreed that the connection with the University is desirable, they not being bound by the act to locate the College, and found it within two years, may proceed to make inquiries and provisional arrangements, and even bring matters to the point of consummation, anterior to the meeting of the next Legislature, and as soon as a single clause in the present act shall have been repealed, may, by a few strokes more, make fast their provisional arrangements, and speak the College at once into existence. It must be kept in mind, that the *time* which, under the present act, will be required for putting up the buildings at Lansing, will be saved, if the College is attached to the University. This saving of time is a gain which might well enter among the arguments for such a connection.

Finally, then, it appears clear to me, not only that the Agricultural College will derive incalculable advantages from a connection with the University, but that such a connection is even now a feasible project.

A. WINCHELL.

UNIVERSITY OF MICHIGAN, March 10, 1855.

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I fear I am trespassing upon your time and patience, but the object of this meeting is one of no common occurrence, or of slight interest to yourselves, or to the citizens of Michigan. Indeed, this act, in the furtherance of which you cheerfully take part, makes an epoch in the history of Michigan, and not of Michigan only, but also in the history of our country. For no State Agricultural School in connection with an experimental and model farm has yet been established by either of the States of this Union. It has been reserved for Michigan to take the lead in this matter. And why may she not; she is one of the younger sisters of the Union it is true, but is she not comely? See her rising in the midst and spreading herself upon the crystal waters of these inland seas; surely it is a good land, a land of brooks of water, of fountains and depths that spring out of valleys and hills; land of wheat, and barley, and vines, and fruits, and flowers, and honey; land wherein thou mayest eat bread without scarceness; a land whose stones are iron, and out of whose hills thou mayest dig brass. Yes, Michigan is, by her natural position and resources, rendered pleasing, lovely, beautiful, wealthy, and worthy to take the lead in this noble enterprise, the accomplishment of which will add to her value, her fame, her glory. Say you that New York, Massachusetts, Ohio and some other States have their agricultural schools? Each of the States named have taken some steps towards the accomplishment of so desirable an object, but have not yet succeded. In 1853 the Legislature of New York passed the following act, viz:

AN ACT to incorporate the New York State Agricultural College, Passed April 15th, 1853.

The people of the State of New York, represented in Senate and Assembly, do enact as follows: SECTION 1. John Delafield, Henry Wager, B. P. Johnson, William Kelly, John A. King, N. B. Kidder, Robert J. Swan, and such other persons as shall or may be associated with them for that purpose, are hereby constituted and created a body politic and corporate by the name, style and description of the "New York State Agricultural College," and the said corporation shall have and enjoy all the corporate rights and privileges enjoyed by any incorporated college in the State of New York, and shall be subject to the provisions and exercise the powers and duties contained and set forth in the second article of the fifteenth chapter, title one of the revised statutes.

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SEC. 2. The farm and grounds belonging and attached to the said college shall consist of not less than three hundred acres.

SEC. 3. The plan of instruction shall embrace the following branches of knowledge: practical and scientific agriculture, chemistry and its manipulations, so far as it may be usefully connected with agriculture, mathematics and mechanics, surveying and engineering, geology and botany, the practical management of the farm, of the dairy, and of the various kinds of live stock; also such other branches of knowledge as may be deemed useful and proper.

SEC. 4. The persons named in the first section of this act shall be and form the first board of trustees.

Sec. 5. This act shall take effect immediately.

By the following notes taken from the Journal of the New-York State Agricultural Society for July, 1853, and November, 1853, it will be seen that under this charter a college was organized and a farm purchased.

NEW-YORK STATE AGRICULTURAL COLLEGE.

This institution was chartered by the Legislature of the State of New-York, for the purpose of presenting to Agriculture the means for acquiring a knowledge of the Arts and Sciences appropriate to their vocation; to prepare students for practical active labor, by training the mind in a system which shall inculcate an intimate acquaintance with the sciences essential to agricultural success.

To insure the development of principles and their application to the soil, the Legislature has required the purchase of not less than three hundred acres of land.

The Trustees, having accepted the trust confided to them by the Legislature, organized the State Agricultural College, by the following appointments:

John Delafield, President of the College.

Hon. John A. King, Chairman of the Board of Trustees.

Joel W. Bacon, Secretary.

N. B. Kidder, Treasurer.

At a meeting of the Board, on the 4th of June, a report was presented by B. P. Johnson, from a special committee, on the location of the College, declaring "that after an examination of the Oaklands Farm in Seneca county, they are entirely satisfied that the price asked for it is

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its fair value in the market for farming purposes; that it is, by previous preparation, by position and variety of soil, in every respect adapted to the objects of the Institution; that the title is perfect, and recommend that the chain of title be entered at large on the minutes of the Board," &c. This farm is situated midway between the market towns of Waterloo and Geneva, in full view of Seneca lake, and overlooking the village of Geneva; elevated about 125 feet above the lake, it is free from causes disturbing health; its soil varies from a strong clay to a sandy loam, presenting varieties sufficient for testing by experiment every doubtful question in relation to soils, and to exhibit the most approved system of cultivation.

The Trustees are prepared to receive from farmers and friends of agriculture, proposals for the capital stock of the Institution, which will be distributed in shares of fifty dollars each, payable, 10 per cent. on subscribing; 40 per cent on 1st July; 50 per cent on 1st October.

The Trustees may be addressed (post paid) at their respective residences, as follows:

Hon. John A. King, Jamaica, Queens county; Henry Wager, Westernville, Oneida county; B. P. Johnson, Agricultural Rooms, Albany; Wm. Kelley, Rhinebeck, Dutchess County; N. B. Kidder, Geneva, Ontario county; Joel W. Bacon, Waterloo, Seneca county; Tallmadge Delafield, Geneva, Ontario county; Wm. Buel, Rochester, Monroe county; John Delafield, Oaklands, Seneca county.

The officers of the College will endeavor to present subscription books in each county, that the College, so entirely agricultural and peculiarly the Farmers' Institution, may find its support widely diffused throughout the State.

The President will, upon application to him, give all needful information to the ordinances, rules and regulations of the College, and the courses of instruction to be pursued.

By order of the Board of Trustees,

JOEL W. BACON,
Secretary.

NEW YORK AGRICULTURAL COLLEGE.

The committee of the trustees, Messrs. King, Kelly and Johnson, who were appointed in relation to the purchase of the farm for the Institution, met at the Oaklands farm, on Saturday, June 4th, and after exam-

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ining the farm of Mr. Delafield, and the title of the same, which was found in all respects satisfactory, reported to the Board of Trustees in favor of purchasing the same at $26,000. The farm contains 350 acres, with varieties of soil well adapted to the objects of the Institution. The report was accepted by the Board of Trustees. As soon as the necessary funds are secured, of which the prospect is very encouraging, the arrangements for placing the Institution in operation will be carried out at an early day.

DEATH OF JOHN DELAFIELD, ESQ., LATE PRESIDENT OF N. Y. STATE AGRICULTURAL SOCIETY.

The death of Mr. Delafield occurred suddenly, at his residence, Oaklands, Seneca county, on the 22d October. His loss to the Agricultural community is irrepairable; no man in our State has devoted himself with more intelligent zeal to the advancement of this great interest than Mr. Delafield. By his exertions, an Agricultural College was chartered, and its Board of Officers organized, of which he was chosen President, and had succeeded in securing funds nearly sufficient to put the institution into operation immediately. We know not where to look for his successor, but trust that that good Providence which has hitherto prospered us, will direct to some discreet man to occupy the position of our deceased friend and fellow laborer.

In the proceedings of the Executive Committee will be found appropriate resolutions in relation to the decease of Mr. Delafield.

NOVEMBER, 1853.

A short time since, I wrote to B. P. Johnson, Esq., Secretary of the New York State Agricultural Society, asking for information respecting the present situation of the New York State Agricultural School, but have received nothing in addition to what I have presented. The advance of the enterprise appears to have been checked by the death of Mr. Delafield.

I have before me a "Circular, embracing a brief history of Pleasant Hill Academy, and Farmers' College, together with a plan and course of study of a department for the promotion of Scientific Agriculture and Horticulture; College Hill, Hamilton county, Ohio, November, 1853." Also, a circular of the Ohio Agricultural College at Oberlin, Lorain county, Ohio.

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The former of these is a private enterprise, and was founded by F. C. Carey. The latter is also a private enterprise, and the following letter from one of its professors, will explain the objects and plan of this institution:

OBERLIN, Jan. 4, 1855.

J. C. HOLMES, ESQ.:

DEAR SIR—Your letter of the 25th ult., making enquiries respecting the "Ohio Agricultural College," was received some days since and deserved an earlier answer, but the necessary leisure has not been at command until this moment. I enclose you one of our circulars from which you will get an idea of our object and plan, and also of our course of instruction. In addition to what appears in the circular I may add that this institution, although designed and adapted, as we believe, to promote the public good, is, however, a private enterprise, in which only the lecturers have any pecuniary interest, they having mutually agreed to share equally in the expense, the labor, and in the profit or loss. We have no endowment and have received no pecuniary aid from the State or any other quarter, and probably should have been unable to commence this winter had not the Oberlin College made us a very generous offer, viz: the gratuitous use of lecture rooms, laboratory, philosophical apparatus and library during the college vacation, which continues the whole time that we desired to occupy. Whatever else we needed for the illustration of our several departments of instruction, each lecturer procured for himself: the beginning of a library and collection or museum is all we have of joint property. There is no farm connected with our school, and indeed, the management of a farm would not harmonize with our plan, which is not so much to train up the rising generation in the practical details of farming as to give to the farmers already in, or about entering upon active life, an opportunity of learning the *rationale* of their every day labors and operations. With this view our lectures continue only during the winter months, in which respect our plan resembles that of most medical colleges; during the remainder of the year we expect our pupils to apply our teachings to practice on their own farms, as some of the teachers will be doing upon theirs. We have not found it necessary to have a complicated organization; we do our own business and therefore have no need of trustees. Dr. Dascomb, our senior associate, is Secretary and Treasurer, but he is too modest to allow himself to be

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styled President. Our class this winter is quite small, but we are in a measure compensated by their intelligence and diligent attention to the instruction given. We, ourselves, find so much pleasure in teaching the various applications of science to agriculture, that we almost forget that this is for the present our only compensation. But we are not discouraged, we expect to do better another winter—it is our determination to keep right on until we do.

In respect to the effort you are making in Michigan we heartily bid you "God speed," and trust the good people of that enterprising State will see the advantage of prompt and liberal appropriations. We made no application for a State appropriation, not because we doubted the wisdom of such expenditures, nor because we did not feel the need of a much greater outlay, but because we thought we had better devote our energies to demonstrating that there is something to be taught before our overtasked people in Ohio would be willing to pay anything for the teaching.

Yours truly,

NORTON S. TOWNSHEND.

By these documents you see that neither of these States have a State Agricultural College, under State patronage, if they have under any patronage. There is no such school in Massachusetts. It is true that in some of the colleges in different States there has been established a Professorship of Agriculture. There is one such in Yale College.

We can say then, and with pride and satisfaction we say it, that Michigan is the first of these United States to try the experiment of establishing a State Agricultural School and experimental and model farm, under government patronage. We hope and trust the experiment will prove an eminently successful one.

It is true, the enterprise is one of vast importance, and by the people of the State, by the Legislature, and by yourselves it has been duly considered, and you have decided that in order to render the institution of the highest practical utility, it should be established upon its own basis, and entirely seperate from any other institution.

But although you have arrived at this conclusion, it is right that you should examine the arguments of those who, after giving the subject some attention, "cannot believe" that in establishing an independent school "the best thing has been done." Hence I am pleased to have

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the opportunity of laying before you, as I have done, the written arguments and views of one whom I am certain is worthy of being heard, and is entitled to your respect. Yet, I think he is mistaken in his premises, mistaken in his argument, and mistaken in his conclusions.

For the purpose of giving information upon the whole subject matter, and at the same time answering some if not all the arguments and suggestions contained in the paper just read, I will ask your attention to some extracts from the report of Commissioners concerning an agricultural school, to the Legislature of Massachusetts.

The Commissioners were Hon. Marshall P. Wilder, President of the United States Agricultural Society; Edward Hitchcock, Sam'l. A. Elliot, Thos. E. Payson, and Eli Warren. This report deals with facts and gives the experience of those engaged in imparting agricultural education in Universities, Colleges, Schools, &c.

REPORT:

"The first seed ever planted was the first effort of civilization. The highest physical triumph of civilization, therefore, must be, that perfection in the art of cultivation which will afford abundant sustenance to the largest possible population.

Agriculture is that art; the nursing mother of nations. With its prosperity, population multiplies, commerce and manufactures increase, all the industrial pursuits of mankind flourish, and wealth and comfort abound. On the contrary, let the cultivation of the soil in any nation be neglected, the hum of business will be silenced, the arm of industry paralyzed, and both individual and national happiness destroyed. Or, let the earth cease to yield her annual increase; yea, let but one of her accustomed crops be cut off, as we have witnessed in Ireland and other countries, and how soon scenes of want, misery and crime ensue, constraining multitudes to abandon home and country in search of sustenance in a foreign land, or consigning them, by famine and pestilence, to untimely graves.

The wisdom of WASHINGTON, the Father of his Country, was in nothing more conspicuous than in this remark: "I know of no pursuit in which more real or important good can be rendered to a country, than by the improvement of its agriculture;" a sentiment which we rejoice to see reiterated in one of the late public documents from the capital, bearing his venerable name.

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"The agricultural interest stands first in importance in our country, and embodies within itself the principal elements of our national wealth and power; and it should be with us, as it has been, and is, with all other prosperous civilized nations, a leading object of public regard."

This art is, indeed, the primitive and most important pursuit of man. On its success depends the welfare, not only of one nation, but of the whole civilized world. Its importance can never be appreciated until we arrive at the final results of commerce, and the other great industrial pursuits which rest upon it, nor until we can obtain the aggregate of those blessings which it has conferred, and is capable of conferring, on the human race.

It should, therefore, be the especial care of every government to promote among its subjects such a knowledge of this world-sustaining art, as to enable them to derive their support from its soil, and thus to make them an independent as well as a happy people. Upon this principle our fathers acted, and the wisdom of their legislation sustains this remark.

Besides, increasing attention to this art is demanded by the character of the present age, so distinguished for scientific discoveries, and the facility with which these are applied to the other arts of life. For instance, what wonderful improvements have been witnessed in the art of printing, since the apprenticeship of our Franklin; in the manufacture of cloth, since the inventions of Arkwright and others; in the comfort and velocity of travelling, since the discoveries of Fulton; and in international communication, by the lighining speed of telegraphic communication; *all*, ALL by the application of science to art.

And has she no contribution to make in aid of agriculture, the parent of all arts? True, she has already done something, in the improvement of labor-saving implements, to lessen the toil of a farmer, and to enable him to perform in an hour the work of a day; and she needs but a wise direction of thought, enterprise and capital, to accomplish still greater results.

The triumphs of inventive genius have placed, on the bright page of American history, names illustrious for patriotism, science, and art. There are many whom we honor and revere as pioneers and practical men in agriculture; but, in the application of profound scientific knowledge to this time-honored art, where are the men who are to stand on

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the roll of fame by the side of Rittenhouse, Franklin and Fulton? If "knowledge is power," the want of it is weakness; and this axiom is as applicable to agriculture as to any other employment. The doors of the temple of science are open to all who desire to enter it, and there is no reason why the farmer, as well as the mechanic or manufacturer, may not pass its portals.

Already the exhaustive process of perpetual cropping has travelled over the once fertile lands of New England, and in its desolating march is wending its way over the fair fields of New York, Ohio, and on to the "Far West." Under the influence of this system of cultivation, the crops of wheat in these States have receded from an average of twenty-two bushels to fourteen bushels, or less per acre; and the same remark will apply to other crops, in like ratio of reduction.

From this sad but common error, Europe is just recovering; and, under the influence of her agricultural schools, now scattered all over the continent, (as will be seen by this report,) and of scientific cultivation, her crop of wheat in many parts has advanced from sixteen bushels to an average over thirty bushels per acre; and a similar increase has taken place in other crops. Wonders have also been achieved in reclaiming waste lands, and in converting those which were barren and worthless, into rich and productive farms.

Our farmers are becoming aware of these facts, but do they realize that the present system of impoverishing our lands, without sustaining their natural strength and fertility, will, sooner or later, end in barrenness? and that, if the present population may rightfully exhaust one-third part of the arable lands of the United States of their natural fertility, the population which will be here at the close of the present century will, long before that period, have consumed the remaining two-thirds of all American territory. By a calculation which appears in a late Report of the Patent Office at Washington, it is estimated that *one thousand millions of dollars* would not more than restore to their original richness and strength the *one hundred million acres of lands* in the United States, which have already been partially exhausted of their fertility.

One-half of the present century has elapsed, and in it, nearly two generations have passed off the stage; a period, too, distinguished for scientific discoveries, and for the progress of civilization; yet, in this boast-

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ed age of improvement, no institution exclusively for instruction in agriculture has been established, either by this Commonwealth, or by any other State of the Union. But dark as this view of agricultural education really is, says Dr. Lee, in his Report to the Secretary of the Interior, it is but the dawn of a bright and happy day. "Many who have labored for the improvement of agriculture and the education of agriculturists, for a quarter of a century, with little hope of reward, now realize the beginning of an auspicious change in public sentiment. Thanks to agricultural societies and journals, the people will soon discover that labor and capital devoted to tillage and husbandry, are as worthy of legislative consideration and aid, as when applied to mining, commerce, and manufactures.

"It is indeed wonderful how long those enlightened farmers, who, like Washington, cherish a due respect for their high calling, have had to beg, and beg in vain, of State legislatures and of Congress, for a little assistance to prevent the universal impoverishment of American soils. Neither the earnest recommendation of the illustrious farmer of Mount Vernon, nor the prayers of two generations of agriculturists, nor the painful fact, that nearly all the tilled lands were becoming less and less productive, could induce any legislature to foster the study of agriculture as a *science*. Happily, this term, when used in connection with rural affairs, is no longer the subject of ridicule.

"A great principle is involved in the science of agriculture, which reaches through indefinite generations, and forms the basis of all possible improvements and of the highest hopes of our race. As a nation of farmers, is it not time that we inquire by what *means* and on what terms the fruitfulness of the earth, and its invaluable products may be forever maintained, if not forever improved.

These are questions of universal concernment, to the careful and rigid investigation of which, no man should refuse to lend a listening ear. A governmental policy which results in impoverishing the natural fertility of the land, must have an end. It is only a question of time, when this truly spendthrift course, this abuse of the goodness of Providence, shall meet with its inevitable punishment.

"A lack of mental culture and discipline is the most serious impediment to the diffusion of agricultural science among the farmers. Its language to them is an unknown tongue. Hence, the most sublime

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truths in the economy of nature are shut out from the popular understanding. It is feared that this will ever be the case, until schools designed to teach these branches of learning, which the practical farmer greatly needs but does not possess, are established and maintained throughout the United States."

In view of these remarks, your commissioners are of opinion that something should be done to arrest this evil, and to restore the grea national loss occasioned by the misapplication of labor and capital in farming; and that the time has arrived, when public sentiment also demands that some measures should be adopted by our Legislatures, as well as by Congress, to afford scientific and practical instruction in the various departments of agricultural husbandry.

Colleges and schools for this purpose have been established in Europe, sharing largely in the patronage, or wholly sustained by government, and under the immediate direction of learned and practical men. These may not be copies for our exact imitation, but models from which may be derived many valuable suggestions.

ENGLAND.

The Agricultural Schools of England are of two grades, differing mainly in the amount of land cultivated, in the amount of apparatus and specimens, and in the extent of instruction. As yet, the government have not, I believe, afforded them any pecuniary aid, and they are sustained by individuals, or by associated voluntary efforts. There is only one school of the higher grade, and that is called a college.

AGRICULTURAL COLLEGE.

This is situated at Cirencester, about ninety-five miles north-west of London, on the oolitic formation, and adjoining the parks of Earl Bathurst, who is honorary president. The buildings are substantial, ample, and even elegant; the principal front being 190 feet. They include a dining hall, library, museum, lecture room, theatre, laboratories, class rooms, private studies, kitchen and servants' rooms, and offices with dormitories, one for each student. An elegant chapel has just been built. A forge, carpenters' and wheelwrights' shop are attached, as also a dairy and slaughter house.

Much attention is given to practical chemistry, the laboratory being on the plan of that at Giessen, and well adapted to manipulations.

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Nearly one half of the students become respectable practical chemists. The collections in natural history are not large. The students' private rooms seem to me too small, and to look too much like the cells of criminals in a prison.

The farm attached, consists of 700 acres, some of which appeared to me to be rather poor land: a thin soil on limestone; but it is well cultivated. Upon it, besides the ordinary out houses, is a veterinary hospital.

There are accommodations here for two hundred students, but only fifty now belong to the school. Those residing in the building pay $355 annually; those who board elsewhere, $175. Formerly the school was open for the sons of the smaller farmers, but could not find support on that plan, and it was found, that if these attended, the wealthier classes would not send their sons. The price, accordingly, has been raised, and none but the sons of gentlemen, such as clergymen and wealthy laymen, now attend. None of the nobility send their children, although many give their money for its support.

John Wilson, F. R. S. E., to whom I am much indebted for giving me every facility for learning the character and condition of the school, is at present the principal and professor of the science and practice of Agriculture. With him are associated a professor of chemistry and chemical manipulation; one of geology, natural history and botany; one of mathematics and natural philosophy; one of veterinary practice, and one of practical surveying and engineering. The instruction is mainly by lectures and subsequent examination, save that the pupils spend about half the day upon the farm, and most of them devote a good deal of time to practical chemistry. The instruction extends over three years, or six sessions; the first year being devoted to *practical* agriculture. The courses of lectures, and their numbers, are as follows:

Science and practice of Agriculture, 3d, 4th, 5th, and 6th sessions, ... 216 lectures.
Chemistry and chemical manipulation, 3d, 4th, 5th, and 6th sessions, ... 152 to 172 lectures.
Devoted to practical chemistry, ... 432 hours.
Botany, geology and zoology, all the sessions, ... 180 lectures.
Veterinary practice, all the sessions, ... 180 "

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Mathematics, 3d and 4th sessions,.....180 lectures.
Natural philosophy, 3d, 4th, 5th, and 6th session,.....72 "
Surveying and practical engineering, 5th and 6th sessions,..72 "

To give a better idea of the nature of these lectures, I quote below a few abstracts of one or two of the courses.

SCIENCE AND PRACTICE OF AGRICULTURE.—FOURTH SESSION.

The Botany of Agriculture.

"The character and nature of the various agricultural plans, indigenous weeds, kitchen vegetables, fruit and forest trees, vegetable substances cultivated for, and used as food, and economic purposes."

The Geology of Agriculture.

"Condition and extent of surface soils: their influence on Agriculture,—local variations, conditions under which the different strata were deposited,—their composition,—mode of disintegration,—manner in which nature supported her own vegetation before man existed,—general surface geology of Great Britain."

The Physics of Agriculture.

"Meteorology, including climate,—mechanics, in reference to implements and machinery,—hydrodynamics,—the general laws of heat, light and electricity, as affecting the vegetable kingdom."

VETERINARY PRACTICE.

Division of the animal kingdom into four great groups.

1. Vertebrata.
2. Mollusca.
3. Articulata.
4. Radiata.

"Vertebrata,—1st class of,—mammalia,—considered and general structure described.

Character and habits of the 7th order,—pachydermata, including the horse, the ass, and the hog. Of the 8th order,—ruminantia,—including the cow, sheep, deer and goat—more particularly considered."

FOURTH SESSION.

"Structure of the animals in these two orders described, including, first, an account of the general anatomy and physiology of the elemen-

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tary tissues of animals,—adipose,—vessicular,—epidermic,—cartilage,—bone,—teeth,—cellular, muscular, and nervous tissues,—fibrous, serous, and mucous membranes. Secondly, special anatomy of each animal, —the peculiarities of construction and the functions of its various organs and parts,—the head, neck, body, leg, foot,—points to be considered in the selection of animals, dependant on a proper knowledge of their anatomical structure."

FIFTH SESSION.

"Pathology and treatment of disease,—description of the various diseases incidental to the domesticated animals, as farcy, glanders, spavins, splints, curbs, capped hocks, sandcracks, cracked heels, blindness, &c., in the horse,—pleuro pneumonia, jaundice, red water, murrain, &c., in cattle,—rot, jaundice, dysentery, pneumonia, sturdy, &c., in sheep,—scrofula, measles, &c., in pigs,—their general causes,—mode of attack, —treatment, including medicines and operations,—neurotomy, bleeding, blistering, firing, &c.—precautions necessary."

SIXTH SESSION.

"The principles of breeding, rearing and feeding animals,—with examples, showing the benefit of their application. The treatment of stock,—stable management. The business and duties of the forge,—shoeing, clipping, singeing, &c. General remarks."

The collections in natural history are not large, but the library is well selected and rich in Agricultural works.

Students are admitted only upon the nomination of a proprietor or donor of $133, and of an age between sixteen and twenty. They "must at least be thoroughly well versed in the routine of a liberal education, in which they will be required to pass a strict examination before admission."

It will be seen, that the object of this college is not to fit men to become laborers on the farm, but to prepare them to be intelligent proprietors of farms, or to superintend those of others.

I was informed that this institution, which appears to be well organized, but has met with a good deal of opposition from the lower and the higher classes, and Mr. Wilson feared that he might not be able to sustain it long in its present form. A rumor reached me before leaving England, that he had been obliged to include instruction in other bran-

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ches of literature and science, in order to attract a sufficient number of pupils, but I cannot vouch for the truth of the report. From the unhappy operation, in this case, of *caste* in English society, and from the want of governmental patronage, we might reasonably anticipate not merely embarrassment, but even failure, as facts respecting other schools will show.

Training Schools.

There are several schools by this name in England, in which agriculture forms a part, and an important part, of the instruction; but they embrace, also the common branches of education. Usually a farm is attached to them. They form the second, or lower grade, of agricultural schools, and are mostly sustained by individual enterprise.

IRELAND.

Agricultural education in Ireland presents itself under two phases. 1. In connection with the colleges. 2. In connection with the system of national schools.

1. *In connection with the Colleges.*

There are three colleges in Ireland called Queen's College; one at Galway, one at Cork, in the southerly part of the Island, and the other at Belfast, in the northerly part. I visited only the latter, but became acquainted with the president of that at Cork, from whom I obtained an account of the system of instruction pursued there. Concerning that at Galway, I have no information; but presume its organization to be similar to the others.

These institutions are, in fact, universities, having faculties in literature, science, medicine and law. At Belfast there are twenty professors, besides the president; and at Cork, twenty-one. Among these chairs, one is a professorship of agriculture, filled by Edward Murphy, A. B. at Cork, and by John F. Hodges, M. D., at Belfast. The course of study and of lectures extends through two years, when the student receives, if accepted, a "Diploma of Agriculture." The courses of lectures embrace, in the first year, natural philosophy, chemistry, natural history, and the theory of agriculture; in the second year, geology and mineralogy, history and disease of farm animals, land surveying and the practice of agriculture. The details of these courses could be given, if wished for by the committee.

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On the model and experimental farm, (comprising 180 acres at Cork,) and in the botanical gardens adjoining the colleges, and in connection with them, the students have an opportunity of becoming acquainted with the best kind of farm animals and machines, and with the manual and mechanical operations of practical agriculture, horticulture and arboriculture, being accompanied in their visits to see such objects and processes, by their instructors, as well as in various excursions of natural history.

Students who attend the agricultural lectures may be matriculated or non-matriculated. The former pay $33 each year, to the college; the latter pay $9 for attendance upon any separate course of lectures. They also pay $3 annually for access to the library, which is well furnished with agricultural publications, to which the matriculated students have access without charge.

In each of these colleges are four scholarships of Agriculture, of the value of $67, two for each year. Candidates for these undergo certain examinations. For the first year, they must have passed the matripulation examination, viz: in English grammar, composition and arithmetic, and then in the following subjects: English grammar and composition, the first four rules in arithmetic, vulgar and decimal fractions, involution and evolution, proportion and simple interest, mensuration, book-keeping, outlines of modern geography. For the second year, the examinations are in the general principles of heat, chemistry, mechanics and hydrostatics, elements of botany and zoology, theory and composition of manures, and feeding of farm animals.

Candidates for the diploma of agriculture pay to the college the first year, $33; for the second, $31. If they have scholarships, they pay only $20 the first year, and $18 the second.

The laboratory at Belfast college appeared to me to be fitted up in superior style, and to afford rare facilities for those students wishing to engage in manipulations.

For these facts I am indebted to Sir Robert Kane, President of Cork College, and to Professor Andrews, Vice President of that at Belfast, with both of whom I had the honor and pleasure of an acquaintance, and to whose kind attentions I am much indebted.

These colleges have been opened only a little more than a year, and therefore it is not possible to determine how far agricultural lectures

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will attract students. At the first course in Belfast, I was told, only six or eight attended.

2. *Agricultural Institutions in connection with the National Schools.*

I would gladly give an account of the whole system of the National Schools in Ireland, for its features appear to me quite interesting, and to promise much for that country. I can only say, that in addition to the common schools, the system embraces model schools, training schools, industrial female schools, work-house schools, evening schools, and agricultural schools. These are all under the superintendence of a board of commissioners, appointed by government, who make an annual report. Dublin is the centre of operations, where model schools exist, with suitable and extensive buildings. There the superintendent of all the schools resides; who, at present, is the Right Hon. Alexander Macdonald. Through the unsolicited kindness of Hon. Mr. Monsell, of the British Parliament, I was introduced to Mr. Macdonald, and received from him all the aid I needed.

There are two grades of the Agricultural Schools,—the "Model Agricultural Schools," and the "Ordinary Agricultural Schools." The pupils in the latter, usually quite young, if distinguished, pass into the former, and are fitted to become teachers. In all these schools of every grade, literary instruction is combined with agricultural; and, indeed, the ordinary schools are only elementary schools, in which agriculture is taught.

Model School and Farm at Glasnevin.

The central and most important of the Model Agricultural Schools is situated at Glasnevin, in the suburbs of Dublin. Mr. Macdonald was kind enough to conduct me thither, and I had, consequently, a good opportunity for its examination. It is situated on a farm of 128 acres, of good soil, and the present head teacher is Mr. Donaghy, to whom I feel under great obligations for the time and attention he devoted to satisfy my inquiries.

This institution was established in 1838, and its grand object is to train up teachers for other schools; several hundreds of whom have already been sent out, and are spreading the knowledge here gained, in other parts of Ireland. The present number of pupils is about fifty, but buildings are now in a course of erection for one hundred, at an

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additional cost of $24,930. The pupils receive literary as well as agricultural instruction. The principal lectures are on practical as well as theoretical agriculture. The mornings as well as evenings are devoted to study, but a large part of the day to labor. Twelve poor boys are placed here for instruction, for whose education and board the principal receives $1 75 per week. The boys also receive six-pence per week, (about twelve cents,) which the teacher told me was a sufficient stimulus to keep them at work. Most of the pupils, I should judge, are over twenty years of age. It was vacation when I was there, yet some thirty or forty had remained to work on the farm, and I very thankfully accepted an invitation to listen to an examination of the young men in the studies they had been taught. More than twenty cheerfully came in from the field, and without changing their dress, passed a very credible examination upon the various principles of practical and theoretical agriculture, in connection with its associated sciences. I am sure that they cannot carry abroad such principles as they here presented, without doing immense benefit to impoverished Ireland.

On the farm, the principles taught in the school are practically illustrated. I walked over the fields, and have never, in any country, seen crops as fine, taken as a whole, of wheat, oats, beans, flax and potatoes. The oats would probably yield eighty bushels to the acre, and the potatoes bid fair to produce seven hundred bushels, the disease having not then shown itself. It is an object with the culturist to carry on the farm and keep it in a good state, without going beyond it for manure. A judicious rotation of crops greatly aids this object, and I believe that, ordinarily, manure is applied only once in four years.

The pupils have access to a good agricultural library, but I saw no collections in natural history, nor in any other department, indeed. The place, however, being only three miles from Dublin, the pupils can resort thither for instruction in natural history, and the inspection of specimens. There is a museum of economic geology there, which will ere long afford great facilities to pupils.

The pupils at Glasnevin are selected by the commissioners from the most deserving and talented young men in the various agricultural schools in the kingdom, so that here we might expect to find pupils of a high character. If they can succeed in extending the skill and pro-

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ductiveness exhibited on this model farm, throughout Ireland, I am confident we should hear no more of her population as starving.

The master of this school pays a rent for this farm, I believe as high as $22 per acre, increased to $35 by taxes and other expenses. Yet, according to Mr. Colman, he is able to make his labors profitable.

Larne National Agricultural School.

Of the smaller model schools, I visited that at Larne, about twenty miles north of Belfast, on the coast. This school has long been in successful operation. The Glasnevin school receives only in-door scholars, but that at Larne both in-door and out-door scholars; that is, such as board in the establishment and such as board out. Only a part of the pupils of the school, which is a national one, attend to agriculture. The present head master is Mr. M'Donnell, who seemed to me like his predecessor, Mr. Donaghy, now at Glasnevin, well qualified to unite the duties of a literary teacher with those of a practical agricultural instructor. The farm consists of only seven acres. Yet in 1848, he maintained on this small plot of ground, in the very best condition, three milch cows, two calves, four pigs, and one donkey, and raised besides 32½ cwt. of wheat, 28 cwt. of oats, and 24 cwt. of potatoes. The crops growing this year, which Mr. M'D. showed me, appeared unusually fine.

The in-door pupils pay $54 a year, including instruction and board, or if upon scholarships, only $22. The out-door pupils pay for instruction, $17 annually. The boarders work on the farm from 6 to 8, and from 10 to 12 A. M., and from 4 to 6 P. M. From 12 to 3 o'clock daily they study in the school room, in agriculture as a science as well as in literature; also, from 6 to 8 P. M., in an evening class under the superintendence of a teacher. They are not admitted under fifteen years of age, nor without a certificate of moral character. The course is of two or three years' duration, according to the age and acquirements of the pupils.

The agricultural instruction "embraces the principles of chemistry; the formation, nature, and difference of soils; the rotations of cropping best suited to such varieties; draining, trenching, and subsoiling, and the principles upon which their efficacy depends; house feeding of cattle, and its advantages; the constitution and properties of the different manures; the proper divisions of farms, &c., &c." To this is added a

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well grounded course of English education in reading, writing, arithmetic, English grammar, geography, book-keeping, mensuration, land surveying, gauging, geometry, trigonometry, algebra, and navigation.

Although it was out of school hours when I visited the establishment Mr. M'D. offered to give me a sample of the proficiency of the pupils, and called in a few for this purpose. Although quite young—not so old as fifteen—they passed a very creditable examination upon agriculture, and some of the sciences, and the impression was strong upon my mind, that if large numbers of the youth of Ireland were thus instructed, from all classes in society, it must exert a great influence upon the agriculture of the country, especially when we know that they see the principles which they learn, fully and successfully carried out into practice upon the farms connected with the schools.

About one-quarter of the pupils at Glasnevin are Protestants, and the others Catholics, and this may be about the general proportion between the two denominations in the country. But such arrangements have been made, that each class receives religious instruction from clergymen selected by the parents and guardians. If the teacher of the school wishes to communicate religious instruction, he gives public notice of the time and place, and the pupils can attend or not, according to the wishes of their parents, or their own.

SCOTLAND.

Although Scotland has, within the last half century, been distinguished for her progress in practical farming, she has no agricultural schools, save a professorship of that department in two of her universities, viz: one in Mavischal college in Aberdeen, and another in the University of Edinburgh. I have understood that the former has not succeeded in attracting many students, although filled by an able chemist, Dr. Smith, and I am unable to state its present condition. But having looked into this department of the University of Edinburgh, and having received some statements from the gentleman who fills the chair, Professor David Low, I will give a brief account of it.

Several rooms in the university buildings are devoted to this department. There we find exhibited numerous models of agricultural implements, and of buildings, chiefly barns and outhouses, for the farm; also seeds and dried plants, marls and soils, chemical substances, a few skele-

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tons and anatomical drawings, and, more particularly, as many as a hundred fine drawings, mostly as large as life, of the best breeds of domestic animals. These drawings are chiefly given by Professor Low, in his two works on the domesticated animals.

Professor Low has been so obliging as to give me on paper a number of facts respecting his professorship, and he has added some remarks, which may be of use to Massachusetts should she establish agricultural schools, and therefore I give the whole in his own words.

EDINBURGH, 19th August, 1850.

DEAR SIR—I have not published any syllabus of my course of lectures, but the arrangement of the more practical branches is the same as in the last edition of my Elements of Practical Agriculture, which work, indeed, was mainly designed as a text book for the course. Another branch is added, of importance in this country, namely, the management of landed property, comprehending the subject of the buildings, and other appendages of the farm, of leases, and generally the relations between landlord and tenant.

The students consist chiefly of the sons of tenant farmers—proprietors of land, or their sons—agents having the charge of landed property—and a mixed class frequently from other countries, who are desirous to obtain a knowledge of the system of agriculture, as it is pursued in this country.

The younger students generally fill up the period of the session by attending other classes in the university, or of private teachers, chiefly chemistry and natural history, and several of them likewise attend the course of lectures delivered in this city by Professor Dick, on veterinary surgery.

I have found by experience, that it is not necessary to have a farm in connection with the chair. All the essential points of practice being previously explained, the students are prepared to enter upon the study of the subject in the fields. To this end, they usually board in the house of some respectable farmer for such a period as suits their convenience, not less, I recommend, than twelve months, so that they may see the operations of an entire season. There are numerous respectable farmers, both in the south of Scotland and in the north of England, who are in the habit of receiving pupils and instructing them in the dif-

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ferent branches of their profession. The usual charge is £100 a year, ($444,) and an allowance, where the pupil keeps a horse, of £25 more ($111). In the United States a less artificial system of management of land suffices than in this country, and I doubt if the sending young men to study on the farms of the country itself would have the same beneficial effects as in this.

The means of communication are now so easy, that I think it would be worth the while of any American gentleman especially desirous of studying agriculture in a good school, to settle himself in this country for twelve months or more, under the tuition of a respectable and skilful practical agriculturist.

I believe it is quite indispensable that a teacher, whether by means of academical lectures or otherwise, be himself thoroughly acquainted with the practice of the farm. He will otherwise be unable to give that kind of instruction to the students which will really be of use to them on their farms. If, therefore, you establish agricultural professors in any of the American universities, I would recommend that the intended professor be sent to this country, so that he may be rendered thoroughly acquainted with the best practices of agriculture; and the person chosen for this office should be one previously sufficiently instructed in the different branches of physical science which have relation to agriculture. I think if this were done, you would have no difficulty in getting professors for your universities who would attract students to their lectures. You ask me if members of the university attend the class. A few of my colleagues have done so, but generally, persons only do so who have some connection as proprietors, tenant farmers, or otherwise, with landed property.

I am, dear sir,

Yours very faithfully,

DAVID LOW.

A most important fruit of agricultural schools and professorships in Scotland and Ireland has been the preparation of books on the subject. In Ireland several have been published which are so well adapted to aid in elementary instruction, that they have been a good deal used in England. Professor Low has published several large and important works on this subject, to some of which, allusion has been made above. Such works cannot but produce important effects upon the progress of

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agriculture; and the multiplication of schools and professorships of this sort, cannot fail to increase the number of works calculated to diffuse widely the true principles of husbandry.

Both in England and Scotland, and indeed in Ireland also, agricultural societies have been an important means of advancing practical farming. Some intelligent gentlemen, whom I met abroad, were even of opinion that these societies were all that is needed, and that schools would be superfluous. But men do not so judge in respect to other departments of knowledge. Societies have long been in active and successful operation in the various physical sciences; but they are not thought to render schools and colleges unnecessary. The societies aid the schools, but the schools must train up men to be efficient members of the societies.

And here let me remark, that in my opinion, schools in addition to societies are most needed in countries whose agriculture is not in the best state. England and Scotland can probably better dispense with schools of this sort than such a country as ours, where so much remains to be done to bring our farming up to the standard of those countries —or rather to a higher standard.

But my special object in alluding to societies in this connection, was to call attention to the fine collections belonging to the Highland Agricultural Society, and deposited in Edinburgh. Here we find two beautiful rooms and well lighted, one above the other, well filled with the following collections:

1. Drawings of domestic animals.
2. Agricultural implements (small models).
3. A great variety of seeds.
4. Grasses and grains of full length, fastened to the wall.
5. Blocks of wood, used in the arts, planed and varnished.
6. Specimens of rocks, soils and marls.
7. Specimens of insects injurious to vegetation.
8. A small green-house.

These rooms certainly afford a fine model for an agricultural museum, and cannot but be very instructive to an intelligent farmer. They are just such collections as are appropriate for an agricultural school.

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FRANCE.

"The institutions of society, like the laws," says the French minister, "which satisfy the real wants of the public, do not spring up spontaneously. Their history shows us that they are always called for beforehand by the public will, preceded by isolated efforts and partial attempts, up to the auspicious moment when the legislator, constrained by the general sentiment, and enlightened by the experiments already made, finds, so to speak, the basis and the materials all ready for the new edifice, called for by the new wants of the country."

The earliest effort in France, and indeed in Europe, so far as I can learn, to establish an agricultural school, was made by M. L'Abbe Rosier, in 1775. He called it "A Plan for a National School of Agriculture in the Park of Chambord;" a place built as a retreat for the court in time of danger, by Francis I., at great expense. It was afterwards presented to Marshal Saxe. It had fallen into neglect, and Rosier's plan was to establish a school there for teachers, as well as practical agriculturists; not very different, indeed, from the plans now extensively adopted in France. Rosier first proposed it to the French minister, Turgot, in 1775, who received the plan with favor, but was driven from his place before he could carry it into execution. In 1789 it was offered to the National Assembly, but received coldly, and when, in 1791, Rosier tried to recover his manuscript from the national archives, it was found that it had disappeared. It was at last found to have been carried into Spain, from whence it was recovered. Meanwhile Rosier was killed in the siege of Lyons. Yet his patron, Le Comte de Neufchateau, developed his plan, and subsequently tried to interest Bonaparte in it. But he, finding that Chambord was originally a military post, chose to reserve it for that purpose, so that France lost the honor of being the first European nation to establish an agricultural school.

It is not improbable, however, that this plan of Rosier, might first have suggested to Fellenberg, of Switzerland, the idea of the Hofwyl school, which was established in 1799, but has lately been discontinued.

As early as 1818, M. de Domsbasle rented an estate at Roville, of 375 acres, at $2,000, to make it a model farm, and a place of education. He was obliged to resort to a subscription of 45,000 francs, to put the establishment into operation, which was done in 1822; and for six

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years it flourished, and did much to awaken in France a taste for agricultural studies, and a reform in the defective modes of culture that prevailed. The results were published in a periodical, entitled *the Annals of Roville*, which diffused, far and wide, more enlightened views of agriculture than had prevailed. M. de Domsbasle, however, found that his funds were insufficient to sustain the establishment in a healthy state. The revolutions in France, also, brought on new embarassments, and he resorted to the government, which at last gave partial aid, but not enough to give permanency to the school; and after a twenty years' struggle, finding his own constitution, and that of his wife broken down, he abaudoned the enterprise in 1842. The example, however, doubtless did good, and led to the establishment of other schools, on a securer foundation.

The Royal Agronomic Institution of Grignon was started in 1827, through the impulse given by the Roville school. This place is about twenty-five miles southwest of Paris, and twelve miles from Versailles. Favored above Roville in soil, capital, and patronage, it has had a more fortunate progress, and never was in a more prosperous condition than when I lately visited it. With a farm of 1,250 acres, and receiving yearly from the government about $12,000, it seems to be doing much for the agriculture of France. But I will delay a little a full description of this school upon its present organization, in order to speak of some others, started by individual enterprise, though aided by the government.

The Institute of Coetbo was one of these. Its objects were to enable agriculture in France to attain the degree of perfection it had reached in Great Britain, in Flanders, and in Switzerland; to collect together from all the departments of France, pupils, who might return, amply prepared to teach a better system of agriculture; to raise up a corps of *agricultural engineers*, prepared for any important enterprise in this department; and finally, to furnish a wide field for experiments on the amelioration of farms, such as individuals could not undertake.

The course of instruction for these objects was full, perhaps too full for a beginning, and without very large governmental patronage; for ere long the institution became so much embarassed in its pecuniary concerns, that it was given up; not, however, till it had produced a good impression on the public mind, and made it more and more mani-

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fest that such institutions were needed by the country, and that it only required a more liberal patronage from the State to give it permanence and extensive utility.

When the Roville school was given up, one of the pupils went into Brittany, and took an estate of 1,250 acres of very barren land, two-thirds of it being covered with heath, and by applying the scientific principles learnt at Roville, he reclaimed the soil to such an extent as to excite public attention, and lead at length, in 1833, to the establishment of the school of Grand Jouan, which still exists, though like that at Grignon, its organization is somewhat changed, as will be explained in the sequel. The success of this school, in such an unpromising spot, is one of the most striking examples of the importance of such institutions.

In the southern part of France, another interesting experiment has been performed by another individual, M. Neviere, who caught his spirit from the Roville school. Between the Rhone and the Saone, not far from Lyons, there exists a region, of sixty-seven square leagues, which scarcely sufficed to sustain a scattered and miserable population, the mean length of whose lives did not exceed twenty-five years. The soil and climate are, indeed, naturally good; but it is periodically inundated by 1,600 or 1,800 marshes and ponds, which bring pestilence with the overflow. M. Neviere purchased 1,600 acres, and in two years succeeded in draining all the ponds, and introducing successful cultivation, with the most marked benefit as to health. Before the drainage was finished, the percentage of his domestics, sick with fevers, was as high as twenty, from June 15 to October 15. After the drainage, the proportion fell successively to six, five, three, and finally to one-half per cent.

The law which forms the basis of the present organization for agricultural instruction in France, after having been proposed by the minister, was thoroughly discussed by the National Assembly, and finally adopted on the 3d of October, 1848. A translation of it will be the best means of understanding the character of the agricultural schools in France, for all the old schools were remodeled to conform to this new decree.

Law voted by the National Assembly of France, Oct. 3d, 1848: The vote stood 579 in favor, and 100 against the law:

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PRELIMINARY ARRANGEMENTS.

Article 1. Professional instruction in agriculture constitutes three degrees.

In the first degree are embraced the *Farm Schools*, for giving elementary practical instruction.

The second degree embraces the *Regional Schools*,* *(les ecoles regionales)* where the instruction is both theoretical and practical.

The third degree embraces a *National Agronomic Institute*, which is a higher normal school of agriculture.

Art. 2. The professional instruction in agriculture is at the expense of the State in its different degrees.

SECTION 1. OF THE FARM SCHOOLS.

Art. 3. The farm school is a rural enterprise, conducted with ability and profit, in which apprentices are chosen among the laborers, and admitted without charge, execute all the labor, receiving at the same time, as a remuneration for their labor, an agricultural instruction essentially practical.

Art. 4. In each of the departments of the republic, there shall be established at first a farm school. This organization shall be successively extended to each *arrondisement* (subdivision of a department.)

Art. 5. The salaries and wages of the instructors *(personnel enseignant,)* are paid by the State. The State also determines the price of the board, which, joined to the labor of the pupils, is allowed to the director to indemnify him for the cost of food and other expenses, occasioned by the admission of the apprentices.

Art. 6. Each year the treasury distributes prizes to the farm schools. They are divided every year to all the children according to their merit, under the name of *pecule*, (stock of money,) but they are not paid over till the termination of the apprenticeship.

SECTION 2. OF THE REGIONAL SCHOOLS, *(les ecoles regionales.)*

Art. 7. France shall be divided into agricultural districts, *(regions culturales.)*

In each district there shall be a regional school.

The *Regional School of Agriculture* is an enterprise for making ex-

*I have thought it better to anglicise the French word here, than to translate it. *District* school would be quite proper, but in Massachusetts it designates the primary schools in a town, and would be so understood if applied here.

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periments, and, at the same time, a model for the region to which it appertains.

Art. 8. The pupils received into the regional schools are either those having scholarships, or those who pay for their board.

Art. 9. The scholarships established in the regional schools are given, after consultation, one-half to the pupils of the farm schools of each agricultural district, and the other half to those persons who present themselves as competitors.

Art. 10. The better pupils of the regional schools, who do not enter immediately into the national agronomic institute, may be placed at the expense of the State as licentiates, near the farm schools, and other agricultural establishments, public and private.

The duration of this residence is two years.

The licentiate assists the director in his labors, becomes acquainted with the practical part of the administration, and completes his agricultural education as *chef d'exploitation*, (chief of the farm enterprise.)

Art. 11. The regional schools are also experimental farms.

The experiments and their results shall receive the greatest publicity.

SECTION 3. OF THE NATIONAL AGRONOMIC INSTITUTE.

Art. 12. The National Agronomic Institute shall be established on the national estate at Versailles.

Art 13. The course of instruction of the National Agronomic Institute shall be gratuitous and public.

Nevertheless, the State sustains there forty scholars.

Each year ten scholarships are given, upon consultation, to graduates of the regional schools; ten others are reserved for all the competitors who present themselves.

Art. 14. Each year the three first scholars of the institute receive a *supplementary mission of studies.*

This *mission* extends to three years; it is open for Frenchmen and for foreigners.

Art. 15. The National Agronomic School takes also the experimental character bestowed upon the regional schools.

The experiments shall be made public, as directed in Article 11.

SECTION 4. GENERAL ARRANGEMENTS.

Art. 16. The functions of a professor in the regional schools, and the National Agronomic Institute, shall be given in council.

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Art. 17. The schools and the National Institute shall be managed solely on account of the State.

Art. 18. (Relates to local matters and need not be given.)

Art. 19. Each year an account shall be rendered to the national assembly of the manner in which this law is executed.

Art. 20. This law shall be executed by the statutes of the public administration and by the decrees of the Minister of Agriculture.

Six months after the adoption of this law, the National Assembly, after a good deal of discussion, voted the sum of 2,500,000 francs ($460,000,) to carry its articles into execution for the year 1849. This was the sum recommended by the minister in his budget.

It remains that I should give a more detailed account of the three classes of agricultural schools which have thus been established in France, and to describe at least one example of each class.

SWITZERLAND.

I am not aware that any agricultural schools exist at this moment in Switzerland, but one has been in operation there which as excited a good deal of interest.

The Hofwyl School.

This institution, established by M. Fellenberg in 1799, has been often described, and has excited deep interest in Europe and America. But it has some time since ceased its operations, at least in almost all departments. I visited the place, however, (nine miles from Berne, in a beautiful country, and over a beautiful road,) not to see the agricultural school, but to learn why it had been discontinued; a point, I thought, of much importance to those who are deliberating whether to establish one. I found a fine farm and extensive buildings, large enough for a University; and I could easily see how it was, that after the death of Fellenberg, the father, in 1844, his two sons found their task so severe that they could not sustain it. The intelligent gentleman who showed me over the establishment, (connected, I believe, with the family of Fellenberg, but his name I have forgotten,) told me that the school was given up, not for want of patronage, for that was abundant, but because the sons of Fellenberg lost their health, through too severe labor. From filial piety they even held on longer than prudence allowed. The fact is, the establishment in all its parts was little short of a Univer-

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sity, with agriculture as its basis. It comprehended the following departments:

1. A farm, intended as a model.
2. An experimental farm.
3. A manufactory of agricultural instruments.
4. A workshop, employed in the improvement of agricultural mechanism.
5. A school of industry for the poor.
6. A seminary for children of the higher class.
7. An academy of theoretical and practical agriculture,
8. A school for the instruction of masters.

It was an attempt to bring together the sons of princes and nobles, along with those of the peasantry and orphans. The school of the former was very expensive, and intended to furnish the means of sustaining the latter almost gratuitously. To the former were attached not less than thirty professors, after Fellenberg, at the suggestion of the Emperor of Russia, had so enlarged it as to accommodate one hundred pupils; and to these were added masters in music, drawing, and all other branches of a refined and liberal education. How could such a vast system be sustained by one man, or even two, upon a farm in the interior of Switzerland? especially when it kept up the distinctions between the rich and the poor so fully, as to excite the warm approbation of the autocrat of all the Russians. I doubt not that when Fellenberg yielded his own judgment to such an adviser, and greatly enlarged the aristocratic branch of his school, he struck a death blow to its permanence. He was doubtless actuated by benevolent motives, and his school has done good, by exciting public attention to the system which he endeavored in vain practically to realize. But he attempted to reconcile and to hold together by a principle of love, what can be sustained only by the bayonet, viz., hereditary distinctions of caste and enlightened poverty. Education and religion do indeed create distinctions among men, but they are founded upon merit and virtue, not upon the accidental and unimportant circumstances of birth and pedigree. The former are essential to the existence of society, but the latter will be less and less regarded, as education and true religion take the place of soldiers and church establishments.

The farm at Hofwyl appears to be a good one, and there are some

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students there still, who receive some instruction, and labor on the land; there is also a small orphan school. The collections in natural history are not large; they have numerous agricultural instruments, and a manufactory of the same, though on a small scale at present.

After seeing the remains of this establishment, I rather wondered that it had not stopped sooner. While it continued, I was told that the farmers of the surrounding country took much interest in it. Its failure does not seem to me to furnish a ground of discouragement to others who would establish agricultural schools, especially, in a country where the sons of the rich do not think themselves degraded by forming a part of the same school with those of the poor who have equal talents; and of this character, to a great extent, are all the schools of our country.

WURTEMBERG.

The agricultural schools of this German State have long been known for their superior character. They are sustained and directed entirely by the State, while those of Prussia are carried on by individuals, aided by the State. M. Royer considers this difference a sufficient reason for the superior character of the Wurtemberg schools.

The Royal Institute of agronomy and forests, at Hohenheim, is the most extensive and best known of these schools, the only one, in fact, of the superior class. It was founded by king William, in 1818, on the royal domain of some 825 acres, not including 3,000 acres of forest. This property is given up entirely to the management of the schools, which renders an annual account of the expenses and receipts, and any deficiency is supplied by the State.

The *personnel* consists of one director, six professors, and four functionaries charged with various labors, besides two tutors, who hear lessons in the school, although residing abroad.

The instruction is embraced in forty courses, divided into three groups:

1. Agricultural matters.
2. Forest matters.
3. Auxiliary science.

A brief statement will give an idea of the instruction.

1st *course*. Agriculture, properly so called. 1. Of climate; 2. Of soil; 3. Of manures; 4. Of tools and instruments for tillage; 5. Of

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clearing up the ground; 6. Of meadows and pastures; 7. Of agriculture in general; *a.* Of ploughing and other tillage; *b.* Of seed plots; *c.* Of tillage following grain crops; *d.* Of crops; *e.* Of threshing and the preservation of grain; 8. Of special agriculture. All cultivated plants are treated of particularly.

2d. *course.* Viticulture; 1. Culture of the vine; 2. Wine making.

3d *course.* Culture of fruit trees.

4th *course.* Raising of cattle; The races; The crossing; The young.

5th *course.* The raising of the horse; Natural history of the horse; Different methods of raising; Choice of animals for reproduction; Treatment of mares; Treatment of colts.

6th *course.* Sericulture, (silk culture,) culture of the mulberry; Management of the silk worms.

7th *course.* Rural industry; *In winter:* Manufacture of beet sugar; Of liquid manure; Of malt, beer, and brandy. *In summer:* Manufacture of liquors; Of vinegar; Of cider; Of lime and of tiles.

8th *course.* 1. *Rural economy;* 3. Valuation of rural estates; *a.* General circumstance of the country; *b.* Of farms in general; *c.* Of different parts of a farm; *d.* Of the means of maintaining the fertility of the soil; *e.* Of systems of culture; *f.* of labor and the internal organization of a farm; *g.* Regulation between the number of beasts and the extent of the land worked; *h.* Of the capital of the undertaker; *i.* Of different modes of working a farm.

9th *course.* Agricultural book keeping; In general; Practising book keeping.

10th *course.* On the operations at Hohenheim, &c.

2.—FOREST MATTERS.

1st *course.* Enciclopedia of the science of forests.

2d *course.* Forest botany.

3d *course.* Sylviculture.

4th *course.* Forest technology; *a.* Working of wood; *b.* Accessory products of the forest; *c.* Of forest industry.

5th *course.* Preservation and defence of forests; *a.* Against the attacks of man; *b.* Do. of animals; *c.* Do. against natural accidents.

6th *course.* Hunting.

7th *course.* Forest work; *a.* Of the inventory; Surveying and de-

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description of a forest; *b.* Of the statistics of do.; *c.* Of the systems of cutting out the wood; *d.* Of the valuation of forests.

8th *course.* Forest economy; *a.* Political economy applied to forests; *b.* Forest labors; *c.* Forest police; *d.* Of the govrnment of the State forests.

9th *course.* Forest legislation and rules of service for forest agents in Wurtemberg.

10th *course.* Practical part of forest concerns.

3. AUXILIARY SCIENCES.

1st course:—Higher Arithmetic.

2d course:—Algebra.

3d course:—Plainimetry. (The mensuration of plane surfaces.)

4th course:—Sterenometry. (" " " solid bodies.)

5th course:—Trigonometry.

6th course:—Applied Geometry.

7th course:—Mathematics applied to forests: 1. Of the culture of trees and of the entire forest; 2. Of the increase of trees; 3. Of the valuation in money of forests.

8th course:—Physics.

9th course:—Mechanics.

10th course:—Chemistry.

11th course:—Oryctognosy. (Coincides nearly with Mineralogy.)

12th course:—Geognosy. (Synonymous with Geology.)

13th course:—Vegetable Botany and Physiology.

14th course:—Special and rural Botany.

15th course:—Zoology.

16th course:—Veterinary medicine: 1. Natural history of our domestic animals; 2. Anatomy of do.; 3. Animal physiology; 4. Care to be taken of animals; 5. Of the medicines proper for slight diseases; 6. Description of diseases; pathology and therapeutics; 7. Veterinary surgery; 8. Internal diseases of animals, and murrains.

17th Course:—Of forest law.

18th course:—Rural constructions.

19th course:—Of preparing plans.

20th course:—Drawing of machines.

To illustrate these courses of instruction, the means seem to be very ample at Hohenheim. They are as follows:

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The operations on a large farm annexed to the Institute.
A forest of 5000 acres.
A botanic garden.
A library open twice a week.
A geological collection.
A mineralogical do.
A botanical do.
A collection of woods, seeds, and resins from the forest.
A collection in comparative anatomy.
Do. of specimens of wool.
Do. of agricultural products.
Do. of models of instruments for tillage.
Instruments for Surveying.
Do. for physical science.
Do. for the chemical laboratory.

The students board where they please, at a price from $24 to $120 per annum, but lodge at the institute.

The number of students in 1849 was about 100, but it had been 140 for many years. No less than 1650 finished their education at this seminary within thirty-one years. And how is it possible that so many, having gone through such a thorough system of instruction, should not exert a powerful influence upon agriculture throughout the community.

There is also at Hohenheim, a practical school of agriculture for orphans and poorer children of peasants, who receive instruction gratuitously, and are paid for their labor. Also a school of horticulture, whose special object is the cultivation of fruit trees of garden vegetables, and ornamental trees. The pupils do all the work, yet receive five lessons in horticulture in the week, and one or two on agriculture each day. There is also, at the same place, a school for meadows and irrigations—theoretical in the winter and practical in summer. The pupils receive wages. A school likewise exists in the same place, for the cultivation of fruit trees, for the preparation of flax, and the manufactory of agricultural instruments. Schools of agriculture have been also opened in a few other places in the State, in which the course of instruction appears to be rather extensive.

The whole number of schools is seven; one superior, two intermedia-

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ry, one inferior, and three special. Probably nowhere in Europe shall we find a better model for such schools than at Hohenheim.

RUSSIA.

Within a few years past, the government of Russia has been much awake to the subject of agricultural schools. Not less than sixty-eight of these have been established, two of which are superior, ten intermediary, fifty-one inferior, four special, and one connected with a university.

STATE OF PRACTICAL AGRICULTURE IN EUROPEAN COUNTRIES WHERE SCHOOLS EXIST.

England and portions of Scotland doubtless exhibit the best examples of husbandry in Europe. In Ireland you see much in the cultivation to admire. Holland shows the great patience, as well as no small degree of success, of its farmers. Belgium has been too much celebrated, perhaps; yet its farmers have had much success upon tracts of land poor and sandy; but the principles of agriculture are not widely diffused, and the skill of the people is limited to a few points of husbandry. France certainly exhibits much excellent tillage to an unprejudiced eye, not generally, however, equal to that in England. Italy, with its fine climate and naturally good soil, cannot but show success, even under comparatively unenlightened tillage. In the valleys of Switzerland we see the influence of comparatively free institutions and natural ingenuity in the cultivation of the soil; so that the traveller is struck with the fine appearance of the farms, and their productiveness, even in some cases at the foot of the glaciers. There is a great difference, however, in the different cantons, and the difference corresponds in a good degree to the state of education. In Germany there is much difference in the agricultural condition of different states and kingdoms. In Prussia, the farmers have had to contend with a poor soil, and with feudal impositions. Yet one sees fine farming in the Rhenish provinces. Saxony, with a naturally rich soil, is said to exceed all other parts of Germany in her husbandry. In Bavaria and Wurtemberg, though abounding in agricultural societies and schools, the general state of agriculture is not elevated. In Russia, so thinly settled, there is a vast amount of uncultivated land. Yet in the vicinity of the cities, and where there are enough laborers, good cultivation is common. In this country is the famous *Tchornozem*, or black earth, a deposit, often from

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fifteen to twenty feet thick, so fertile as to need no manure, yet occupying an area "large as an European kingdom." (Murchisons's Geology of Russia, Vol. 1, p. 557.) It seems to correspond essentially with the prairie soils of our country, and with the *regur*, or rich cotton soils of Hindostan. In Scandinavia the Swedes have shown commendable skill and industry in the cultivation of a country geologically analogous to that of New England. *(For further details, see Professor Johnstone's Syracuse Address.)*

Now it must be confessed that we do not find a very close correspondence between the practical agriculture of European countries, and the number of their agricultural societies and schools. For wherever schools exist, societies are also numerous. In France, for instance, there are nearly two hundred societies, and seventy-five schools. In Bavaria is a general society, numbering 8,000 members, and thirty-five schools. Hence, some would infer that schools are useless. But in the first place, if schools are useless, so are societieties. Secondly, we must recollect that most of these schools have existed only a very few years, and that agricultural improvements are necessarily introduced slowly; so that as yet we ought not to expect to witness much effect from these institutions. Thirdly, very much depends upon the manner in which the schools are conducted, if the community take little or no interest in them, no matter how able the professors. Now if, in this country, the government should take such an exclusive direction of agricultural schools as is done in France, Wurtemberg, and Bavaria, it would be almost certain that the people would take no interest in them. Fourthly, it cannot be doubted, that there are causes operating to advance or retard agriculture, more powerful than schools and societies. For example, natural fertility, or sterility; wars and revolutions; oppressive taxes; individual ignorance, or knowledge. In England and Scotland, for instance, so elevated is the intelligence of the larger farmers and proprietors that they scarcely need schools, since each man is on the look out for improvements, and has the skill to apply them. I contend only, that schools are among the means of advancing the interest of agriculture, without attempting to fix their comparative importance among other means. For in such a country as ours, we need to use them all.

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REMARKS UPON THE FACTS.

I. *They show us an extraordinary increase of interest in Europe, on the subject of Agricultural Schools, within a few years past.* Mr. Colman finished his able Report on European Agriculture in 1844, and in it he describes only nine agricultural schools, though others then existed on the continent, of which he was not probably aware. But the larger part of the 352 above enumerated have come into existence since that time. The fact shows a strong conviction on the European mind, of their importance.

II. *These schools may be divided into two classes:—*

1. Professorships in colleges and universities.
2. Independent schools.

III. *The latter class, by far the most numerous, may be grouped into four kinds,* differing mainly as to the extent of instruction given, and the objects aimed at. 1. Superior; 2. Intermediary; 3. Inferior; 4. Special. The last includes those devoted to instruction in some particular branch, such as horticulture, the cultivation and preparation of flax, irrigation, &c.

IV. *With a very few exceptions,—I do not recollect any, save the university of Edinburgh,—a farm, or at least a few acres of land, is connected with the school.* Thus the practical part of agriculture is attended to, in a manner, it would seem, that must satisfy those who have the least confidence in theory.

V. *The course of instruction, both scientific and practical, is essentially the same in all the schools of Europe.* Some include more branches than others, but there are certain essentials always included in the instruction.

VI. *European Agricultural Schools have taught us some important lessons.*

1. That these schools usually fail, if they do not receive efficient aid from the government.

2. That agricultural societities are not sufficient. These exist in all the countries above enumerated, I believe, and have done great good. But the conviction is very general there, that schools should be added to the societies; especially in countries where cultivation is a good deal deficient.

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3. That theory is to be tested by practice; and such theories as will not sustain this test are to be rejected.

4. That these schools are doing very much to promote the progress of agriculture. This was the general testimony.

5. That to teach agriculture in the primary schools and academies is not sufficient. This does some good, but does not accomplish all that is desirable.

6. That agricultural professorships, in colleges and universities, are not sufficient. 1. Because lectures of this sort attract but few of the students of the colleges, who are looking forward to professional life. Such is certainly the case everywhere in Europe. 2. Because the two classes of students, who would thus be brought together, would have too little sympathy to act in concert, and as equals, in the same institution. 3. Because, without such concert and sympathy, one or other of the classes of students would feel no pride in the institution; and without such an *espite de corps* it could not prosper. 4. Because such professorships, unless numerous, would be entirely insufficient to accomplish the objects desired.

VII. *The lowest class of schools in Europe, the Inferior, are not needed in Massachusetts.*

1. Because the sons of our farmers are so well educated, that they can easily be prepared to enter at least the second grade of schools.

2. Because these inferior shools are adapted rather to paupers and orphans, and others in destitution, than to the sons of farmers in easy circumstances.

3. We already have institutions of this sort, as the Farm School, in Boston, for those who are destitute.

4. Because the subject of agriculture can easily be introduced into our common schools, so far as is necessary to learn the common principles of farming, or to fit boys to enter the higher institutions.

VIII. *We learn that those agricultural institutions succeed best which are started and sustained by the mutual efforts and contributions of individuals, or socieites, and of the government.*

The schools in France, started by enterprising individuals, languished, and some of them failed, until the government lent an efficient hand. Very likely, the want of governmental patronage had something to do with the failure of the Hofwyl School, in Switzerland; and it

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struck me that the Agricultural College of England, at Cirencester, languishes for the same reason. It is said that in Wurtemberg, the schools succeeded well, because the government started and sustains them alone. I know too little of their circumstances and condition to throw light on the subject. But sure I am, that, in this country, the mutual exertions of the government and the people will be essential to success; for this reason, if for no other, that here the people constitute the government: and if their representatives do not act in conformity to their wishes, their decisions will be reversed.

IX. *We learn, from European experience, that independent agricultural institutions are essential to accomplish the object which is aimed at.*

1. Because the field is wide enough to require such establishments. The principles of agriculture are based upon a large part of the physical sciences; and it requires a good literary education to understand those sciences. No man can understand the *principles* of farming, who is not more or less acquainted with chemistry, anatomy, physiology, botany, mineralogy, geology, meteorology, and zoology; and then the practical part requires an extensive acquaintance with various branches of mathematics and natural philosophy. Many important principles of agriculture can, indeed, be taught in the primary schools, or academy; but there should be, somewhere, institutions of a higher character, entirely devoted to a thorough instruction and investigation of the science of the subject.

2. Because it demands extensive collections, of various kinds, in order to elucidate the principles of husbandry; enough, indeed, to belong to any scientific institution, and too many to form a mere subordinate branch of some institution with a different object in view.

3. Because the number of institutions must be so large, that they could not conveniently form an adjunct to some other institution.

4. Because the interests of agriculture are large enough to demand an institution definitely consecrated to their promotion. No other art is so important, and, I may add, no other is so difficult to be successfully cultivated; and, therefore, every means possible should be employed to render it assistance.

X. *Essentially the same reasons, and of greater force, exist for the establishment of Agricultural Schools in this country, as in Europe.*

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1. It is the most ready and effectual mode of making farmers understand the principles on which good husbandry is founded.

Some have an idea that there are no such principles, and that the cultivation of the soil is a hap-hazard affair, and that guessing is as good a way as any to secure good crops. I am aware that all the principles of managing land are not yet well settled, and that different circumstances often disappoint those who follow the best rules. But if there are no scientific principles on which husbandry is based, then one mode of farming is as good as another; a position which I am sure no reasonable man will take. And if one mode of tillage is better than another, there must be reasons for the difference, and those reasons are the very principles we are seeking after. Now it will be the leading object of agricultural schools to discover these principles, and to apply them in such a manner as to satisfy others that they are safe and valuable. Another object of such schools is, to detect and disprove, both theoretically and practically, any false principles and practices that may have been adopted by the community as true. The sons of farmers, who attend these schools, will learn to distinguish the true from the false principles, on this subject; and, on their return to the paternal roof, will communicate their knowledge, and apply it in practice.

2. These schools will furnish the most effectual means of introducing, among farmers, improvements in husbandry. Those who have the management of such schools will be on the watch for every valuable improvement, and be ready to make trial of any that are proposed. They will be in communication with similar schools, and with agricultural societies, in other lands, and thus learn, very early, whatever may aid the farmer, in regard to stock, implements of labor, new crops, and modes of culture. They will, therefore, form centres of information for the agricultural community, and, by going to them, the farmer may see in their collections, new tools, grasses, grains, seeds, &c.

I know that agricultural societies and individuals can do a good deal to diffuse this information; but as above remarked, they are not sufficient. At least, so think most of the countries of Europe, where such societies exist. The governments there feel the need of something more. England has, indeed, reached a very advanced state of agricultural improvement, with but little aid from schools. But it has taken a long time; and, at present, she is just the country that least needs the

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aid of schools, because her agriculture is in so advanced a state, and there are so many societies and educated individuals who are doing all they can to advance the interests of husbandry.

3. Agriculture, more than any other art, needs special help. First, because the principles on which it is founded are more difficult to be understood and applied than those of other arts. The processes of the farmer depend upon some of the most profound and subtle principles of chemistry, meteorology, physiology, and zoology; and so complicated are the causes of success or failure, that often the man who could solve a problem in fluxions, would be unable to unravel them. Secondly, because, for various reasons, other arts have always been more attractive, especially for youth, than agriculture; and hence, fewer efforts have been made to understand and apply its principles. In our country, at least, it is decidedly behind most of the other arts, although confessedly the most important.

4. A comparison of the state of agriculture in Europe with its condition in our country, shows the great need we have of agricultural schools, as well as societies and individual efforts. There are, indeed, several circumstances that lead an European to underrate the state of our agriculture. The great amount of loose stones, (called *drift* by the geologists,) that cover the surface of the Northern States, and which our farmers have been able only to *begin* removing, gives the soil a most repulsive and ragged appearance to a European, save one perhaps from Scandinavia. Then, too, our uncouth wooden fences, which so often shelter a broad strip of bushes or weeds, in the place of beautiful trimmed hedges; and our undrained and uncleared swamps; the large amount of pasture ground, scarcely reclaimed, in many cases, from its native state; and our entangled and untrimmed forests;—all these and other circumstances turn off the mind of the foreigner from the real question at issue, viz., whether the acres of ground that are cultivated here, produce much less than the same amount in Europe. But, making due allowance for unfavorable biases from such causes, it must be merely an excess of national vanity for any one, who has travelled in Europe, to be very sensitive, if gentlemen from that quarter of the globe represent us as much behind the farmers on the other side of the Atlantic, in respect to the cultivation of our farms. I do not see how any one can pass over those countries, and not be struck with the differ-

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ence. He will see many crops there, of great service, scarcely if at all known here. And several subjects, there well understood, are scarcely known or but little attended to here; e. g., draining and irrigation. (See Colman's Report on European Agriculture, Vol. 2, p. 592.) Attention to their forests forms a part of their legislation, and of course of lectures in their agricultural schools. But in Massachusetts, and still worse, in many other states, our beautiful native forests are often treated in a manner little better than vandalism; and these ornaments to the landscape are fast disappearing, apparently with no consciousness that they are of any value, except the sum of money they will bring in the market, as wood or timber. Some of the county agricultural societies in Massachusetts, have, however, I believe, turned their attention to this subject.

XI. *We have, in this country, several advantages over Europeans, for establishing Agricultural Schools.*

1. We have a more perfect state of civil and religious liberty. Even most of the freest of those nations have a State religion to support, and, therefore, have not religious liberty. I observed that this fact was a constant source of embarrassment in the schools; and, in general, those schools in Europe are controlled so entirely by the government, as in this country would alienate the people from them.

2. The absence here of those broad distinctions of caste, which prevail nearly in every part of Europe. I am satisfied that this is one of the greatest obstacles to such schools in Europe. If a school is open for the poor, then the rich, and even those but little above poverty, will stay away. If it is adapted to the wealthy, the poor cannot enter. Some of the schools have changed their policy several times, in respect to this point. But among us there will be no difficulty in adapting a school to all classes. Indeed, if not so adapted, it would not be patronized; or, at least, would do very little good.

3. We are comparatively free from taxes, and can therefore be more liberal towards schools. Till he visits Europe, an American has little idea of the vast difference between men, in this respect, on the opposite sides of the Atlantic, nor on what vantage ground it places his countrymen; and how much easier it is for them, especially the poorer classes, to be liberal towards worthy objects, than in Europe.

4. In this country, the cultivators of the soil are usually the owners

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of it; and it is they mainly who must establish an agricultural school, if one is established, for their own and their children's benefit. But in Europe, for the most part, the laborers have little concern in the matter. They rarely own the soil which they cultivate; and, therefore, take but little interest in getting up schools: nay, they are sometimes afraid of them, lest they should so improve agriculture as to diminish their wages. The schools, therefore, are got up by those who own extensive estates, and who are anxious to make them more profitable; or by political men, who know how much the prosperity of a kingdom depends upon its agriculture.

5. The superior state of education in Massachusetts, among the laboring classes, gives us another decided advantage over Europeans in the establishment of agricultural schools.

It would be quite practicable, I think, to require, for admission to our schools, as much knowledge as is demanded in many of the European schools for completing the course; and that, too, if our pupils were the sons of common farmers. Now, it is not national vanity, but simply the statement of a fact, to say, that this could not be done in any European country, save perhaps in Scotland, where few agricultural schools exist. In most other countries, the sons of the common peasantry, or laborers, are incapable of receiving that benefit from these schools, which the poorest might derive in this State. Here, they could start from a much higher point in their career of agricultural learning, and of course, terminate their course at a level proportionably more elevated.

6. We have European experience to direct us in this matter, and can more easily avoid the mistakes which that experience points out, and introduce its better plans, than can be done by institutions already established.

XII. *The conclusion to which my own mind has been brought, by these investigations, is, that Massachusetts should lose no time in taking hold of the business of agricultural education, efficiently and liberally.*

I can hardly doubt, from all that I have seen and heard for the last ten years, that there is a strong desire and expectation that the Legislature should move in this matter without delay. I have heard it talked about almost everywhere; it has formed the burthen of a large part of the addresses delivered at the annual agricultural fairs; individuals have attempted to establish private schools; and at least two gentlemen, at

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their decease, have left splendid legacies for founding such schools—one at Roxbury, and the other at Northampton. I refer to Hon. Benjamin Bussey, and Oliver Smith, Esq., of Hatfield. How soon the legacy of the former can be brought into use, for a school at Roxbury, I know not; but that of Mr. Smith will not be available for more than half a century. Yet let no one fear that we shall have too many schools of this description. Those countries in Europe where they are most numerous, are most inclined to multiply them; and my own conviction is, that, ere fifty years are gone by, the State will find that she needs several of these institutions, of the superior class. I apprehend that it will not be found wise to allow the number of pupils in any of them to exceed two hundred.

Perhaps here I should rest; but so naturally have I been led to inquire into the proper character of agricultural education in this State, should any be adopted, that I shall venture to obtrude upon the committee my conclusions. I trust, however, that I shall not be so tenacious of these views, as not to be willing to adopt better ones, which other members of the committee may suggest.

The first question that arises is, *What are the objects we may hope to attain by founding agricultural schools in the State?*

I reply, and here I must be pardoned for a repetition of some sentiments—

1. First, such schools would furnish to all classes of the community, an opportunity to acquire a definite knowledge of all the known principles by which agricultural pursuits should be conducted. These principles are the joint results of all the experience men have ever had in husbandry, and of all the deductions they have made from the sciences on this subject. That there is now a great deficiency of such knowledge in our community, no man in his senses will deny. Many of the principles of agriculture are, indeed, themselves yet unsettled; but a great many are settled, of which our farmers are yet ignorant, or know them only imperfectly. To explain and illustrate these, will be the grand business of agricultural schools. Hence, it is the sons of farmers who would be most interested in attending them. But there are many others, who desire to prepare their sons for agricultural pursuits; at least, to enable them to oversee farming establishments, if not to labor with their own

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hands; and they would find such schools a most important auxiliary to their success.

2. In such schools our youth would find an excellent opportunity of learning the best method of conducting the practical operations of the farm; in other words, of seeing theory reduced to practice. They would learn, also, how to labor with their own hands, for I take it such a requisition would be indispensable in these schools. And thus might we hope that practical farming would become more popular, as it should be, among all classes of the community.

3. These schools would form centres of information on the subject of agriculture, and from them our farmers could derive important aid. They would keep in communication with similar institutions throughout the world, and thus would learn all that might be new or important in husbandry, and spread it through the community.

4. These schools would be the best places for testing the value of supposed improvements in agriculture. Such improvements, coming accidentally to the farmer's ears, are now often tried, and not unfrequently found of no value, and this is one of the circumstances that prejudices farmers against what they call book farming. But let such such supposed discoveries be first tried on the experimental farm connected with the school, and their deficiency or value may be thus learnt once for all.

5. They ought to be places for making improvements in agriculture. We ought not to expect too much in this respect, especially when the schools are new. But as the instructors become experienced, and the means in their hands more ample, it may be hoped that they will push their researches and experiments into unexplored regions, and bring back some fruit for the practical farmer.

6. Finally, to sum up the whole in one word, the grand object of these schools is to improve the husbandry of Massachusetts. It is to make the acres that now produce something, produce more, and thus to stimulate the rising genaration to reclaim more acres from the waste condition in which they now lie. One is struck, in travelling through the State, to see how large a part of its surface produces next to nothing, although capable of yielding a rich supply; nay, in how many cases the richest portions of its soil—its swamps, for instance,—remain in their native condition. Nor is it strange that our sons, when they see so lit-

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tle to encourage them at home, should brave the hardships and the fevers of the western prairies, in order to enjoy their prolific soil. Agricultural schools will aid in checking this disposition to emigration, and tend to multiply the cultivated acres of Massachusetts. Along with agricultural societies and individual efforts, which will still be needed as much as ever, we may hope these schools, properly founded, and judiciously managed, will serve to bring agriculture more nearly upon the ground occupied by the other arts. Now it is decidedly below them; and yet these arts can never thrive long if agriculture is neglected, and, therefore, it is for the interest of all classes to join in efforts to advance the cause of agriculture.

But what shall be the character of the Agricultural Schools? This difficult inquiry I would meet by a few suggestions. But after the survey that has now been taken of agricultural education in Europe, it cannot be expected that I should recommend, or that the community will be satisfied, with schools of an inferior class. Twenty, or even ten years ago, it might have answered to propose the introduction of agriculture into our primary schools, or as a department in our academies, or a professorship in our colleges. All this it may be well enough to do now, but something more must be done. So Europeans judge, and accordingly, as we have seen, they have started institutions with as ample a foundation, and as numerous a body of instructors, as we find in most of our American colleges. Nothing short of this, as it seems to me, will be sufficient for our country; nay, I fancy that at least one such superior institution is needed in each of our States. The work to be done is too great, the number of teachers is too many, and the amount of various collections too large, to attempt to attach an agricultural school to some other institution, and that too as only a subordinate branch. Even if agriculture is taught in our colleges, academies, and primary schools, it needs some one institution devoted entirely to the subject, to give effect and completeness to the subordinate teaching, and to carry it still farther; otherwise the agricultural knowledge will be as the literary would be, if the universities and colleges of the land were taken out of the way, and only the primary schools and academies remained.

But though our community, as I believe, especially the intelligent farmers, are prepared to appreciate the importance of such superior institutions, I fear that but few are ready to devote the amount of funds re-

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quisite for putting such a seminary at once into full operation. Nay, none but those who have had experience know how large an amount of money it requires, with the strictest economy, to found and carry on successfully a large institution of learning. My hope is, however, that the government and the people will start this enterprise, if they do it at all, with a high standard in view, even though they cannot, till a considerable period, reach the height of their wishes.

If the testimony here produced is not sufficient to establish the main question, viz.: Should an Agricultural School, suited to the wants of Michigan, be a branch or department of the State University? or should it be a seperate and independent institution? then against the former and in favor of the latter proposition, let me introduce the testimony of him who fills the chair of Agricultural Chemistry in Durham University, England.

Prof. James F. W. Johnston, occupying the position he does, I think him eminently qualified to testify upon this point, and his testimony is highly valuable.

In one of his lectures delivered before the New York State Agricultural Society, a few years since, he says:

"It has been proposed to attach agricultural departments to some of the colleges. To that there can be no objection; at the same time, any encouragement which the State may give to this kind of instruction, should be given to the one school by which all other schools will be regulated, when once you get it fairly organized.

"There is this difficulty in regard to attaching agricultural departments to existing colleges, that if this new department is under mere scientific men, the proper wants of farmers' sons will not be properly looked to. So sensible am I of this, that in the suggestions I made to the Legislature at New Brunswick, as to the mode of improving its agriculture, whilst I recommended an agricultural school at Fredrickton, where there is a college, I have recommended that it should not be connected with the college, because they are not practical men, and are not calculated to give instruction to pupils intended for practical life. What is true there, is true all over the world. It is necessary that such a school *should be in charge of men who understand agriculture, and the wants and wishes of agriculturists, and who know what should be done to improve both.*"

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So far then, as we are able to judge from the past experience of others, I think we may safely say that if we expect to meet with success in establishment, continuance, and practical utility of an agricultural school, it must stand separate and apart from all other institutions of learning, and upon a basis of its own.

To teach thoroughly the science and practice of agriculture must be the main object of the institution, for our agricultural interest is paramount to all other interests in the State; therefore these teachings must not be made secondary or subservient to any other object.

Did time permit I would like to say a few words with particular reference to the following points in the paper from Prof. Winchell:

1. Jealousy of centralization.

2. Fear that the school would not be sufficiently under the control of the Agricultural Society.

3. The saving in outlay, by a connection with the University.

4. The impossibility of making another collection of geological and mineralogical specimens; also, collections of birds, plants, &c.

5. The calculations of the editor of the Michigan Farmer, as quoted by Prof. Winchell.

6. The belief that the instruction must necessarily be somewhat inferior to that afforded by the University.

7. The inferiority of the teachers at the Agricultural School, as compared with those at the University.

8. The divorce of the Agricultural School from the University.

9. Dispersion of educational resources.

10. Local benefits to be derived by the place of location.

11. That the friends of the Agricultural College have generally advocated its connection with the University.

12. The plan proposed by Prof. Winchell.

But I know I have already exhausted your patience, therefore will not extend my remarks.

And now, as Michigan has taken the lead in this noble undertaking, and other States are already congratulating her for her wisdom, energy and enterprise, as exhibited in providing for agricultural education, we hope and trust that no untoward event will occur to injure or check its progress, but that the plan of operation may be well matured, competent

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men be placed at the head of the different departments, the standard of excellence be placed high, and may there be many pupils who will enter for the attainment of, and none of them rest satisfied until they have reached, and passed the goal that marks the height toward which their steps shall be directed, and may each gain the prize of knowledge, peace, plenty and happiness while on earth, and a glorious rest from their labors and a holy joy hereafter.

And may each of those to whom its management is entrusted feel that a heavy responsibility rests upon them, and while they occupy such position may they not cease in their most ardent and zealous endeavors to elevate, by means of the State Agricultural School, and every other means in their power, the art and science of agriculture to its true, its legitimate position.

He who is engaged in agricultural pursuits is engaged in an honorable calling, and may all who wish, be taught how to pursue it understandingly, and knowing how, may they pursue it honorably and profitably to themselves and the State.

May the managers of this institution have the proud satisfaction of seeing this noble work, which they have been instrumental in founding and carrying forward, crowned with success.

The 13th, 14th, and 15th days of June were spent by the committee in the examination of lands that had been offered for the purposes of the Agricultural School. On Saturday, the 16th, the committee having decided upon a location, reported as follows:

HON. IRA MAYHEW, *Supt. Public Instruction of the State of Michigan:*

SIR—In conformity with the provisions of an act passed by the legislature of Michigan, A. D. 1855, and approved February 12th, 1855, entitled an Act for the establishment of a State Agricultural School, the executive committee of the Michigan State Agricultural Society advertised for proposals for lands for the purposes named in the act, and would respectfully report that they received the following proposals, viz:

Mrs. Charlotte A. Cleveland:

East fractional half and Northwest quarter of Section 10, Town 4 North, Range 1 West—460 and 68-100th acres.

S. W. quarter of Sec. 3, T. 4 N., R. 1 W.—160 acres.

E. half of S. E. quarter of Sec. 4, T. 4 N., R. 1 W.—80 acres.

Making in all 700 and 68-100th acres.

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Located in the town of Meridian. Price $15 per acre, one-quarter cash, the balance in not to exceed five annual payments, with interest annually. A portion of the farm is improved.

William Banta, of New York:

Section 2, Town 3 North, Range 2 West—597 acres. Situated in the town of Delhi, four miles south of Lansing, on the road to Mason. Sixty acres of this is partially chopped and cleared. Price, ten dollars per acre, one-half cash, the balance in from three to five years, with semi-annual interest at seven per cent.

A. R. Burr, of Lansing:

Section 13, Town 4 North, Range 2 West—45 and 1-100th acres.

" 18, T. 4 N., R. 1 W.—83 acres.

" 18, " " south of Cedar river—107 and 44-100th acres.

Section 19, T. 4 N., R. 1 W.—385 and 12-100th acres.

" 13, T. 4 N., R. 2 W.—3 acres.

Add 53 acres. Making in all, 676 and 57-100th acres. Located in the towns of Meridian and Lansing.

A portion is partially improved. Price, $15 per acre, cash, or a short credit will be given if necessary.

William C. Grant, of Ohio, offers eight hundred acres, but it being located in different sections, and there not being a sufficient number of acres in one body, the committee did not view the premises.

S. E. Millett, of Lansing:

Section 35—621 and 77-100th acres, in the town of Delta, Eaton county, four and a half miles from the Benton House, on the road from Lansing to Battle Creek. Price, $15 per acre, cash.

Ebenr. Walker, and others, Okemos:

Section 27, Town 4 North, Range 1 West. Say 620 acres.

Scattered in the town of Meridian, near the village of Okemos. Price, $15 per acre.

Peck & Redick, Lansing:

On Section 23 and 24, Town 4 North, Range 3 West, 640 acres.

J. Baker, and others, Dewitt, Clinton county:

Section 16, Town 5 North, Range 2 West—640 acres.

Near the village of Dewitt. Price, $13 50 per acre.

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Mr. Smith, and others, of Lansing;

Section 18, Town 4 North, Range 2 West—338 and 40-100th acres.

Sec. 7, T. 4 N., R. 2 W.—177 and 91-100th acres. Making 516 and 31-100th acres.

The committee having examined, carefuly, each of the above named sites, and having unanimously decided that they prefer the site offered by Mr. A. R. Burr, of Lansing, for the location of said School, provided he shall add to his proposal fifty three acres of land adjoining the north-east corner of the tract offered by him, known as the Smith tract.

Mr. Burr having acceeded to the proposal of the committee with regard to the Smith tract, we have voted unanimously, to locate said agricultural school upon the lands offered by Mr. A. R. Burr. For a more full description of said lands we refer you to his written proposal and accompanying map, which we herewith submit.

A conditional contract has been entered into with Mr. Burr, for the purchase of said land, for the purpose above named, which we herewith submit for the approval of the State Board of Education.

All of which is hereby respectfully submitted.

LANSING, Michigan, June 16th, 1855.

A. Y. MOORE, *President.*

S. M. BARTLETT,
PAYNE K. LEACH,
JAMES BAYLEY,
JUSTUS GAGE,
JOHN STARKWEATHER,
} *Ex. Com.*

J. C. HOLMES, *Secretary.*

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REPORTS

OF

COUNTY AGRICULTURAL SOCIETIES,

FOR THE YEAR 1854.

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BRANCH COUNTY.

COLDWATER, Aug. 6, 1855.

J. C. HOLMES, ESQ., *Sec'y Mich. State Agricultural Society:*

DEAR SIR—It is but a very short time since I have been advised of the duty being incumbent on me as the Secretary of the Branch County Agricultural Society—to report to you of the doings of our society, and the improvement, prospects, &c., of our county. I regret my inability at so late a day to collect such facts in relation to our agricultural and business interests as would be worthy the columns of your reports; and the more so when I know that our county is in every way worthy of a good representation in those columns.

Since the establishment of our county society in 1851, a very decided improvement in the cultivation of the soil, in the selection and care of stock, and in the general taste has occurred, arising in no small degree from the examination of the various productions of the members and interchange of thought with each other, at its stated meetings. Our county is well adapted to the growing of all grains common to this latitude, (and that means about all grown in the United States,) and the successful rearing of stock. Until quite recently our farmers have relied almost entirely upon their wheat as an article of export, which, in a degree, was induced by the fact that it was the only product which would command a cash market. I am happy to say, however, that any farmer in this county may now sell any product he may have, from a horse to a chicken, or from the barn full of wheat to the paper of garden seeds, for cash at remunerative prices; and such has been the case for two or three years—"dicker" is ruled out of the traders' Lexicon. To this favorable change may be attributed much of the success which is attending the efforts of every prudent husbandman in this vicinity; and this has

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been followed by another change which is adding much to the already good reputation of our county.

Our farmers are giving attention to a greater variety of products than ever before; hence they are less liable to disappointment, or pecuniary loss from the failure of a single crop. Our county has been noted for some time, for its fine herds of Devon cattle—second to none in the State. Quite recently, a beginning has been made in rearing pure breed short horns.

In horses, we are so modest as simply to say, we excel any county in the State. Sheep have received and are receiving much attention, and you may rest assured we are not behind hand on the Suffolks, Essex, Burkshires, Chickens, &c., &c. Geographically, we are in the southern tier of counties, being fourth from the east—the Southern Michigan and Northern Indiana Railroad passes through about the centre of the county from east to west. There are four Railroad stations in the county, making it convenient for the farmer in any part of the county to deliver his products upon the line of the Railroad. The county town business, and geographical centre, is Coldwater. It is 90 miles from Lake Erie, and contains about 3,000 inhabitants. There is no better market for buying or selling on the line of this Railroad.

Enclosed herewith, I send you a list of premiums awarded at our last county fair. We have increased the amount of prizes to be awarded this fall, several hundred dollars.

Respectfully yours,

J. B. CRIPPEN.

LIST OF PREMIUMS

Awarded by the Branch County Agricultural Society at its Third Annual Fair, held the 4th, 5th and 6th days of Oct., 1854:

FARMS.

The first premium to Ansel Nichols,.....$10 00

CATTLE.—CLASS I.—SHORT HORNS.

Best Bull 4 years or over, G. P. Stephens,..... $5 00
" Cow 4 " " P. P. Wright,..... 4 00

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CLASS II.—DEVONS.

Best bull 4 years or over,	Darwin Wilson,	$5 00
" 2 " "	E. M. Crippen,	3 00
2d " 2 " "	John Allen,	2 00
Best calf,	F. N. Smith,	2 00
2d "	C. H. Williams,	1 00
Best cow 4 years or over,	E. M. Crippen,	4 00
2d " 4 " "	"	3 00
Best " 3 " "	John Allen,	3 00
2d " 3 " "	C. H. Williams,	2 00
Best heifer, 2 years or over,	E. M. Crippen,	3 00
2d " 2 " "	John Allen,	2 00
Best " 1 " "	"	2 00
" calf,	"	2 00
2d "	F. N. Smith,	1 00

CLASS III.—GRADE CATTLE.

Best cow 4 years or over,	E. Leeland,	$4 00
2d " 4 " "	A. C. Fisk,	3 00
3d " 4 " "	C. H. Williams,	2 00
Best " 3 " "	A. C. Fisk,	3 00
Best heifer 2 years or over,	A. Nichols,	3 00
2d " 2 " "	Geo. Hawley,	2 00
Best " 1 " "	Wm. B. Mason,	2 00
2d " 1 " "	A. C. Fisk,	1 00
Best " calf,	J. D. W. Fisk,	2 00
2d " "	A. C. Fisk,	1 00
Best bull 2 years,	Wm. B. Mason,	3 00
2d " 2 "	Wm. B. Sprague,	2 00
Best " 1 "	J. D. Cole,	2 00
" calf,	E. O. Leach,	2 00
2d "	Darwin Wilson,	1 00

CLASS IV.—NATIVES.

Best cow 4 years or over,	E. Foster,	$4 00
" " 3 "	D. Holmes,	3 00
" bull 1 "	R. D. Decker,	2 00
Calf,	E. Foster, discretionary premium,	50

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CLASS V.—WORKING OXEN AND STEERS.

Best	yoke of oxen,	4	years and over,	F. N. Smith,	$5	00
2d	" "	4	" "	P. Bowker,	3	00
Best	" steers,	3	years old,	P. Bowker,	3	00
2d	" "	3	"	E. Leland,	2	00
Best	" "	2	"	Geo. Hawley,	3	00
2d	" "	2	"	L. R. Austin,	2	00
3d	" "	2	"	Geo. Hawley,	1	00

CLASS VI.—FAT CATTLE.

Best fat ox,	A. Hawley,	$3	00
Best " steer,	J. H. Vannaker,	2	00
Best " cow,	A. Hawley,	3	00
2d " "	C. H. Williams,	2	00

HORSES.—CLASS I.—STALLIONS.

Best	horse,	4	years old,	A. C. Fisk,	$5	00
2d	"	4	"	E. Butterworth,	3	00
3d	"	4	"	Smith Barnes,	Trans.	
Best	for all work,	4	" and over,	E. Mather,	5	00
2d	"	4	" "	J. M. Hall,	3	00
3d	"	4	" "	J. S. Harford,	Trans.	
Best	"	3	"	S. H. Abbott,	3	00
2d	"	3	"	James Clisby,	2	00

CLASS II.—MATCHED AND SINGLE HORSES, BROOD MARES AND COLTS.

Best	pair matched,	4	years and over,	Jas. Peterson,	$5	00
2d	"	4	" "	N. Baker,	3	00
3d	"	4	" "	Seeley & Fox,	Trans.	
Best	single horse,	4	" "	J. B. Tompkins,	3	00
2d	"	4	" "	L. H. Thompson,	2	00
Best	brood mare,	4	" "	H. Warner,	3	00
2d	"	4	" "	A. Brownell,	2	00
3d	"	4	" "	A. C. Fisk,	Trans.	
Best	colt	3	years old,	J. Onley,	3	00
2d	"	3	"	D. C. Ransom,	2	00
Best	"	2	"	J. Pudgeon,	3	00
2d	"	2	"	J. Olney,	2	00

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Best colt, 1 year old, Andrew Crater,		$2 00
2d " 1 " B. Perkins,		1 00
Best sucking colt, H. Warner,		2 00
2d " E. J. Paddock,		1 00

SHEEP.—FINE WOOL.

Best buck, 2 years and over, B. Perkins,	$2 00
2d " 2 " " Geo. Boon,	1 00
Best lamb, A. Nichols,	1 00
2d " A. Nichols,	50
Best pen of ewes, 5, 2 years and over, A. Nichols,	3 00
" " 1 year old, J. B. Tompkins,	3 00
Best lamb, J. B. Tompkins,	2 00

SHEEP—LONG WOOL.

Best buck, 1 year old, J. Clisby,	$2 00
2d best buck 1 year old, J. Pudgeon,	1 00
Best lambs, "	1 00
2d best lambs, "	50
Best fat weather, Geo. Boon,	1 00
" ewes, "	1 00

WOOL.

Best fleece, 6 lbs., J. R. Tompkins,	$1 00

HOGS—LARGE BREED.

Best boar, 5 months old, S. Barns,	$3 00
2d best boar, 5 months old, Jas. Anderson,	2 00
Best sow and pigs, L. R. Austin,	4 00
2d " C. H. Williams,	3 00
Best fat hog, discretionary prem.,	Trans.

SMALL BREED.

Suffolk boar, 1st prem., J. B. Crippen,	$3 00
Essex boar, 2d prem., D. Wilson,	2 00
Sow, 1st prem., J. B. Crippen,	3 00
" 2d " D. Wilson,	2 00
" 3d " H. R. Taylor,	1 00
Sow & pigs, 1st prem., D. Rice,	4 00
" 2d prem., C. H. Williams,	3 00

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POULTRY.

Best coop Bantams, H. W. Johnson,	$2 00
" Polands, H. R. Taylor,	2 00
2d best coop Polands, Albert Chandler,	1 00
Best Dorkings, D. Benton,	2 00
Best coop Cochins, D. Littlefield,	2 00
2d coop Cochins, E. M. Crippen,	1 00
Best coop Bramah, "	2 00
2d " " E. Mather,	1 00
Matries and Chitagongs, Amos Wood,	1 00
Each half prem., Jessee Burns,	1 00
Shanghais, J. B. Crippen,	1 00
" divided, D. Wilson,	1 00

FARM IMPLEMENTS.

Best farm waggon, E. C. Sterns,	$2 00
Best sett harness for general purposes, D. Holmes,	2 00
" seed drill and cultivator, H. Shoudler,	2 00
" corn planter, "	5 00
" straw cutter, J. McCrea,	2 00
" single harness, D. Holmes,	2 00

PLOWS AND PLOWING.

Best plowing with horses, B. Perkings,	$5 00
2d " " S. Rice,	3 00
Best " with oxen, W. P. Morey,	5 00
2d " " Geo. Boon,	3 00
Best plow for general use, B. Perkings,	2 00

BUTTER, CHEESE AND HONEY.

Best 10 lbs. butter made in June, Polly Mason,	$3 00
2d 10 lbs. " " J. Worden,	2 00
Best 10 lbs. " made in Oct., Polly Mason,	3 00
" 15 lbs. cheese, Wm. Tibbitts,	3 00
2d 15 lbs. " Lyman Witter,	2 00
Best loaf bread, Mrs. L. D. Brewer,	50
2d " " Mrs. C. H. Williams,	25
Best hop rising, Mrs. S. L. Daggott,	50

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DOMESTIC MANUFACTURES.

Best pair linen hose, Polly Mason, discretionary premium,	$0 50
" specimen worsted work, Mrs. H. C. Lewis,	1 00
2d " " Miss D. Ransom,	50
Best rag carpet, 10 yds., Mrs. J. C. Bennett,	1 00
2d " 10 yds., Geo. Hawley,	50
Best pair woolen hose, A. Chandler,	50
" " mittens, Mrs. J. H. Waterman,	50
" patch work quilt, Mrs. Philo Barter,	1 00
" lamp mat, A. F. Bidwell, discretionary premium,	50
" specimen crochet work, S. Barns, discretionary premium,	50
" counter pane, Wm. A. Kent, discretionary premium,	50
" embroidered dress scarf, 2 capes, 1 child's hat and suit boy's clothes, Wm. C. B. Fisk, discretionary premium,	1 00

FLOWERS.

Best collection house plants, Mrs. L. D. Brewer,	$1 00

FRUIT.

Best 12 varieties winter apples, O. Burdick,	$2 00
2d 12 " " " A. W. Case,	1 00
Best 12 " fall " W. Demming,	2 00
2d 12 " " " E. Leeland,	1 00
Best collection pears, Wm. B. Sprague,	1 00
" " peaches, Mrs. A. Chandler,	50
" " quinces, D. Wilson,	1 00
" " grapes, C. H. Williams,	50

GRAIN, FLOUR AND SEEDS.

Best 12 ears red glazed seed corn, H. Pierce,	$0 50
2d best " " " J. H. Vanaiker,	25
Best " 8 rowed yellow " E. Mosher,	50
2d best " " " J. H. Vanaiker,	25
Best " Dutton " O. Burdick,	50
Best " King Philip " Leach & Warren,	50
2d best " " " C. C. Lippincott,	25
Best " yellow dent " Geo. Hawley,	50
2d best " " " D. Wilson,	25

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Best 12 ears white flint seed corn,	S. H. Abbott,	$0 50
Best " " dent "	J. H. Culver,	50
2d best " " " "	S. H. Abbott,	25
Best half bushel beans,	J. H. Vanaiker,	1 00
" " seed wheat,	L. R. Austin,	2 00
2d best " " "	C. Brown,	1 00
Best " field peas,	Leach & Warren,	1 00
" " oats,	C. H. Williams,	50
" " clover seed,	L. R. Austin,	1 00
" " timothy "	Geo. Tyler,	1 00
" " rye, dis. prem.,	W. M. Bryan,	50
" barrel flour,	J. B. Crippen,	1 00
" and greatest variety of roots for cattle,	Leach & Warren,	1 00
" " culinary vegetables,	"	1 00
" 12 blood beets,	"	50
" 12 fields "	"	50
" 12 carrots,	"	50
" 12 parsnips,	"	50
" peck onions,	"	50
" half bushel table potatoes,	"	50
" " " for feeding,	"	50
Greatest variety of " " "	"	1 00
Best peck sweet "	"	50
" tomatoes,	"	50
" 6 heads cabbage,	"	50
" 12 vegetable oysters,	"	50
" 6 winter squashes,	"	50
" 12 white turnips,	J. N. Wilcox,	50
" 12 ruta bagas,	Leach & Warren,	50
" 3 water melons,	"	50
" 6 pumpkins,	L. R. Austin,	50

MECHANICS.

Best flour barrel, coopers work,	—— Henry,	$1 00
" specimen marble work,	James Anderson,	1 00
" " tin ware,	A. Chandler,	1 00
" boots and shoes,	S. P. Noyes,	1 00

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Best edge tools, J. Burns, ... $1 00
Best chairs, S. H. Moulton, ... 1 00
Best guns, R. M. Wilder, ... 1 00

MISCELLANEOUS, FOR WHICH DISCRETIONARY PREMIUMS WERE AWARDED.

Best bottle current wine, ... C. S. Tucker.
" " catsup, ... L. L. Daggett.
" spec. crackers, ... L. L. Daggett.
" six lbs. beeswax, ... L. L. Daggett.
" architectural drawing, ... M. H. Parker.
" musical instrument, dulcimer, ... N. T. Waterman.
" cook stove, ... A. F. Bidwell.
" spec. drawing, ... R. G. Chandler.
" pair slippers, ... Miss A. J. Haynes.
" scarf, ... Miss A. J. Haynes.
" architectural drawing, ... E. B. Saxton.
" cider mill and press, ... L. Merry.
" cheese press, ... L. Merry.
" sulky, ... A. C. Fisk.
" bottle catsup, ... Mrs. A. Chandler.
" waggon, ... A. M. Bryant.
" spec. brick, ... S. B. Love.
" buggy, ... L. D. Brewer.
" ½ doz. calf skins, ... H. W. Johnson.
" ½ doz. upper leather, ... H. W. Johnson.
" ½ doz. harness leather, ... H. W. Johnson.
" shell basket, ... Mrs. Johnson.
" 3 stoves, ... Beach & Mockridge.
" card basket, ... Mrs. R. F. Mockridge.
" front door, ... J. C. Bennett.
" tidy, ... Mrs. G. Purdy.
" bottle grape wine, ... D. Chapman.
" 2 shirred bonnetts, ... Mrs. L. Rosenbaum.
" 2 dresses, ... "
" watch case, ... Miss C. Mosely.
" sulkey, ... E. Butterworth.
" coverlet, ... R. D. Decker.

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Best case clothing,.....Jackson, Wright & Co.
" case hardware,.....Mockridge & Wilder.
" case Millinery,.....Daugherty & Co.

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CALHOUN COUNTY.

MARSHALL, July 5, 1855.

J. C. HOLMES ESQ., *Sec'y of the Mich. State Agricultural Society:*

DEAR SIR—Calhoun county was first settled in June 1831—was organized March 6th, 1833. It contains twenty townships, or 720 square miles, affording 2,880 farms of 160 acres each. The farms of the county vary in size. Some owning only 40 acres while others own a larger quantity of land, exceeding in one or more cases, 1,000 acres. The quality of the soil varies in different localities, and frequently on the same farm or 80 acre lot, several varieties of soil are found. The prevailing soil on the oak openings is a sandy loam, fertile and well adapted to the culture of wheat and clover. In addition to the oak openings, there are a few small prairies, some marshes, and a portion of the county is heavily timbered with beech, maple, whitewood, &c. No pine is now found in the county or ever was to any extent. With judicious cultivation the original fertility of the soil may be preserved, and by a proper rotation of crops and by highly manuring, the original fertility may be increased. This our farmers are beginning to understand. The practice of growing wheat after wheat is now abandoned by all good hunbandry, and experience has taught most of the farmers that the only effectual remedy to destroy sorrel beds, is found in a liberal application of barn yard manure.

The exceedingly high price of all kinds of produce has stimulated the owners of the soil to break up and put under cultivation a large quantity of new land; so that the quantity under cultivation, in this county, is constantly on the increase. With our facilities to the eastern markets, through the medium of the Central Railroad, taken in connec-

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tion with the greater fertility of our soil, improved farms have greatly advanced in value, and are fast reaching that ratio of difference which should sooner have existed between farms here and in the State of New York and the other eastern States. Unimproved lands have likewise advanced in value within the last two or three years, and now find a ready sale. Good improved farms with suitable farming buildings, sell from $30 to $60 per acre, varying in price according to locality, the extent of the improvement and fertility of the soil. Choice unimproved land is worth from $10 to $20 per acre, though occasionally, a tract of wild land is purchased for less than ten dollars per acre. The value of the soil of this county would be greatly enhanced if the Central Railroad Company could be induced to reduce their tariff of freight on agricultural products forwarded from the stations on the line of the road in this county.

The agricultural resources of the county annually increase. Twenty-five years ago there was not a white inhabitant in the county—not an acre of ground tilled by white hands. The Pottawotamies held undisputed dominion. How wonderful the change! How much has labor accomplished! There is no cessation to the axe and plow. Labor still progresses, and we are now enjoying its fruits by the blessings of a kind Providence. Truly, there never was a people with more cause to be thankful than we.

The population of the county in 1837 was 7,960; in 1840, 10,599; in 1845, 15,594; in 1850, 19,169; in 1854, 22,768.

	1840.	1850.	1854.
No. of horses,	1,518	3,325	3,989
" neat cattle,	9,555	16,591	15,469
" sheep,	3,007	49,963	68,443
" swine,	18,308	11,364	*10,949
Bushels of wheat,	176,628	390,774	480,649
Lbs. of wool,	3,674	126,589	189,261

The above, as a portion of the agricultural statistics of the county, exhibit its rapid progress. It is safe to state that we annually raise in this county 500,000 bushels of wheat, 400,000 bushels of corn, and of other kinds of grain about 150,000 bushels, beside the potato crop which in 1850 was 155,510 bushels. The pounds of wool may be estimated at

*Over six months old.

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200,000. Tons of hay cut, from 25,000 to 30,000. No. of acres of improved land in 1854 was 121,023, now is probably 130,000 or over. No. lbs. of butter made in 1853, 397,490; do. cheese, 27,260. No. of runs of stone, 42; barrels of flour made in 1853, 113,240.

The Agricultural Society for this county was among the first organized in the State. It is in a flourishing condition—in 1854 numbering 330 members—receipts on Fair Grounds $300—has a permanent site for holding its annual fairs near the village of Marshall, the county seat, substantially enclosed, with all the necessary buildings. The farmers of the county take a deep interest in its prosperity. The fair is held two days, and much rivalry and competition exists in the exhibition of stock and other articles.

As the list of premiums awarded for the last year is a local matter it is omitted.

The finances of the Society are in a healthy condition, and we have every reason to hope that the interest taken in the Society will continue to increase.

It is a fit occasion to call together the citizens of the county, male and female, and from the interest manifested in the welfare of the Society by the ladies of the county, there is no danger of its falling off in importance or ceasing to be held. The fine arts, the work of their delicate hands, always lend a charm to the days of our fair.

The fruit exhibited shows that this portion of the State is destined to be a great fruit-producing country.

With these remarks, allow us to subscribe ourselves,

Your Ob't Servant,

ISAAC W. WILDER,

Sec. Calhoun Co. Ag. Society.

ADDRESS

DELIVERED BEFORE THE CALHOUN COUNTY AGRICULTURAL SOCIETY.

BY ROBERT F. JOHNTSONE.

Mr. President and Members of Agricultural Society of Calhoun Co.:

Almost thirty years ago, on the occasion of laying the foundation stone of that mighty column which communicates one of the most won-

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derful struggles recorded in history as incident to the birth of nations, the most distinguished statesman of the age, and certainly one of the most illustrious citizens to whom our country has given birth, after declaring that we could not expect to stand by the side of Solon or Alfred, or compare with Washington and Franklin, and other great men who were their companions in laying the foundations of our government, made these remarks: "There is opened to us a noble pursuit to which the spirit of the times strongly invites us. Our proper business is improvement. In a day of peace let us advance the arts of peace, and the works of peace. Let us develop the resources of our land; call forth its powers, build up its institutions, promote all its great interests, and see whether we, also, in our day and generation may not perform something worthy to be remembered."

Such, nearly thirty years ago, were the words of the great New England statesman.

When they were spoken there were in our State but feeble symptoms of that rapid and vigorous growth which has since characterized western progress and improvement.

The great experiment of canal navigation was untried; and the question as to whether communication by that means could be carried on with profit between distant portions of the country, was yet undecided. The Erie Canal, that artery along which pulsates the life-blood of states and communities, and especially of our own, was not completed. No great line of railroad had been laid down in either the Eastern or Western Hemispheres. The scream of the locomotive had not been heard in the old world or the new. The crossing of the ocean by steam was looked upon as an impossibility; and no electric telegraph had stretched its skeleton wires from one end of the continent to another, transmitting with lightning speed the mystic hieroglyphics of thought.

Thirty years ago the whole population of the State of Michigan was not equal to that contained in the twenty towns which are comprised in the present county of Calhoun. Thirty years ago the boundaries of Michigan were not established by law, and white settlers in the interior were almost unknown. The beautiful oak openings and fertile prairies that lie around us, now thickly dotted with farms, had not tempted the emigrant so far from the lakes which connected him with the friends he had left behind; and no villages with their churches, their institu-

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tions of learning, their busy humming mills, and broad populous streets occupied the places where Marshall, Albion and Battle Creek now stand. No plow had turned a sod on the prairie; no axe had leveled the sturdy growth of your timbered lands. Not even a road had traversed your county; and the venturesome explorer who came out to gratify his curiosity by a view of the interior, trusted himself solely to his compass and the Indian trails, then the only pathway through the wilderness. Such was the condition of this portion of the territory of Michigan, when, before the assembled multitudes on Bunker's Hill, Mr. Webster declared that "Our proper business is improvement."

Let us now, by a few inquiries and investigations, endeavor to ascertain to what extent in "our day and generation" this "business" has been prosecuted; and also trace to their true cause the rapid advances that are being made in the condition of the country and its inhabitants.

Behold, where then was an uncultivated wilderness, where no sound was heard but the cry of the beast of the forest, the song of the wild bird, or the whoop of the Indian hunter, we see now a gathering of intelligent farmers, mechanics, and artists, who have brought hither the productions of their industry and skill, and who seek with friendly emulation to obtain the rewards that shall be adjudged to those who are foremost in the ranks of improvement. Looking upon these evidences of progress, may we not say of those who conquered the wilderness and forced it to yield its fruits to their peaceful arts, that they, in their day, have done "something worthy to be remembered?" and does not such a scene as this bear ample testimony to the foresight, the industry and zeal with which the duties imposed upon them by the "spirit of the times" have been fulfilled?

Within these few years past, the face of the country has undergone an almost entire change. Is not this in a great measure to be attributed to the revolutions that have taken place in agriculture as an art? That this is the "noble pursuit" to which, more than to any other, "the spirit of the times" is directing the attention of this generation, all will concede; and a glance at the different principles which have governed the pioneer and his successor will at once exhibit the true secret of our present prosperity and rapid advancement, as contrasted with the comparative snail-like pace of our predecessors.

The great object with the pioneers, was to economise labor and dis-

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pense with capital. The principle by which they were guided merely taught them to cut down the forest and till the land in the most primitive manner. Their successors, on the contrary, by the application of capital in accordance with the discoveries of experience reduced to science, are enabled to give increased fertility to lands already subdued, but the natural productiveness of which has been either impaired or exhausted.

The practice of the first is comprised totally in local traditionary experiences, handed down from father to son. It can be reduced to no standard; it is governed by no rules; improvement in it is only the result of necessities which force those who follow it to depart from their usual routine to overcome some new and unexpected difficulty. This was the method of the pioneers. The knew they had nothing to do but to make use of the treasures which lay at the surface. Like the first explorers of gulches and canons of the auriferous Pacific State, they had only to turn up the soil anywhere, and in the most unskilled manner, to obtain the reward of their labor. Their architecture was as rude as their husbandry. The art of building the log house, the log barn, and brush fence, was not to be learned from works of science. No treatise on architecture ever taught how log was piled upon log, nor did any agricultural economist ever explain the art of making brush fences. The implements they were obliged to use, and the stock they raised were all in keeping with their times and their necessities. Their hands were their capital; their expenditure the sweat of the brow. Their income was not reckoned by dollars and cents, but by the increase of cleared acres, and by the additions made from year to year to the stock which grew up around them. The prices in the markets gave them no concern, for they were too far off to be affected by any fluctuation that might occur. They had enough for their own consumption, and sometimes a surplus to barter away with any new settler who might chance to come among them, for some article which, to the new comer, was a superfluity—to the pioneer a luxury. When a piece of land was worn out, the idea of enriching it from the barn yard never swept across their minds except as a far off vision of something that might be practised where land was dear, and help might be had for the asking. Cattle were seldom yarded, or kept where their manure could be made available, even if wanted; and if, by chance, a horse made his nightly lodging

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in the log stable, the mound that grew up beneath the square hole that served for a window in the rear of his domicil, was undisturbed year after year, except by the weekly addition to its size, and finally descended to the next purchaser of the premises, a grass-grown monument to the unskilled system of the pioneer.

You have all seen these mysterious mounds; they are rich in hidden treasures; some of you perhaps, taught by the cunning arts of chemistry, have forced them to yield back those treasures to the land they had helped to impoverish. But the pioneer had not learned that art. It was easier and cheaper for him to clear off another portion of the forest, or turn over a new sod on the prairie, than to attempt to renovate an old and worn out field.

This is the method of culture still pursued on new lands at a distance from market, where the soil is luxuriantly fertile; producing large crops with but little labor; and such was the condition of farmers here before the introduction of railroads. Corn grew rank but was not worth transportation to market. Wheat was grown, but not in quantities to more than satisfy the demand of the population of the small towns and villages sparsely scattered over the State. Oats were raised, but only to feed the horses that were raised on the farm; and cattle, sheep and wool were cared for only to supply home necessities.

The advent of the locomotive was a signal for, or rather the beginning of a revolution for which the pioneers were not prepared. They were shrewd enough to see that they were out of place in the midst of improvements, which were being made around them, by the introduction and application of capital to a business for success in which they had been taught to rely only on their strong arms and unbending constitutions. They did not choose to become students, or to unlearn what they had been taught; or rather, they had become too old to learn aught that was new in an occupation to which they had been trained from earliest youth. They did not like innovations; they could not endure to see their toilsome, hard-fisted efforts set at naught by the introduction of senseless gearing and machinery; new implements were not to be tolerated in place of the old and tried. They laughed at the idea of Merino sheep being better than the coarse wooled breed they raised, and which were as choice as any at the East when they left that somewhat indefinite region. The hardy, half-wild cattle which came without cost.

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and required little care in keeping, they considered far more profitable than the high-bred, high-fed animals whose ponderous frames they imagined would consume more food during the winter than their carcasses would be worth in the spring.

All were not so; but the class we speak of made up their minds that they could do better by accepting what they considered a fair compensation for their improvements, and moving to some other locality, where they could again commence, and carry on that system of pioneering which required no capital but their sturdy frames, and no learning but that transmitted to them by their fathers, or which they had picked up while conquering some of the difficulties incident to the life of the backwoods pioneer.

No disparagement to this class, as individuals, is meant by alluding to them in this manner. They have had their counterparts in all ages and amongst all nations; but it is a settled fact that wherever their mode of culture has prevailed to such an extent as to become a national characteristic, the result has been the same—where no advances have been made in agriculture, no innovations upon old systems ventured upon by agriculturists, there has been a corresponding national stand-still, or, more properly speaking, a national retrograde movement. For an example or illustration of this, you need not look beyond the past unwritten history of your own county.

Think you, that if instead of the tomahawk, the bow and the scalping knife, the dusky aboriginies that you have driven from these forests, had possessed the axe, the plow, and the reaper, they would so soon and so easily have yielded to your advances? No, had these broad, fair fields been tilled by them—had their roof-trees been as deeply rooted in the soil as yours are now, they would bave bid defiance to your puny attempts at supplanting them, as you have since to their threatened returns to their ancient hunting grounds. Their tomahawks and their arrows passed through the air, and left no trace of where they had been; their foot-paths through the unbroken forest, narrow, devious and darkened as their own minds, has disappeared under your furrows, and their very existence is fast becoming a tradition of the past.

It is true that their mode of life was a grade or two below that of the pioneer, but each in its degree produced the same results. They did not "advance the arts of peace," and theirs was not "an age of

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improvement." They fled at the sound of the pioneer's axe, as that very class of men to which allusion has been made, have voluntarily exiled themselves to still father western wilds before the scientific innovations which result from the advancement of the arts of peace. Yet the mission of these men was in its degree as noble as yours, as faithfully performed, and as necessary to your comfort and success, as is the proper application of the sciences and systems you have introduced, to the perfect development of the resources of your land.

All honor to the pioneer of the west! the breaking-up team of the age! still pushing sturdily on in advance of the lighter implements with which science comes to cultivate their rudely broken furrows, to scatter the seed for you with unconscious hands, to gather up the bountiful harvest in her arms of wood and steel, and lay it submissively at your feet! Some who were pioneers are yet amongst you, to witness, to share in, and be benefitted by these triumphs of art; but they are, generally speaking, men of the age, men of improvement—those who are willing not only to advance with the word, but to do all in their power to aid in its advancement.

This, friends of agriculture, is a slight sketch of that system, if system it may be called, which was practiced by the early settlers, which still prevails in many of the partially settled counties, and which will continue to prevail to a greater or less degree, so long as land is cheap, labor scarce, wood an incumbrance, and markets are at a distance.

Now let me give you a few comparative statistics by way of contrast, and to show the changes that have been made in the value of your agricultural products since the construction of railroads. The two great staples of your State are wool and wheat. By examining the census tables of 1840 and 1850, we find that the increase of the number of sheep in the State during those ten years, was 650,000; and the increase of the number of pounds of wool in the same time was 1,789,908. Of wheat in the same period the increase was nearly 3,000,000 bushels.

Look now at the difference made in the value of a single bushel of wheat by the two different modes of transportation. On the ordinary highways of the country, it was seldom that more than fifty bushels of grain were brought to market at a single load; and whatever the distance from market might be, the value of that load was decreased in

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proportion to the cost of its transportion. Thus, when wheat was worth $1 50 per bushel in Detroit, a load of thirty-three bushels, or one ton, if already in the market, would have brought $49 50, while in the granary of the farmer, thirty miles distant, it would only have been worth the same money minus the expense of marketing, which is estimated by some at the rate of fifteen cents per mile, making the cost of transporting one ton thirty miles, $4 50. This would not be far out of the way, taking into account the wear and tear of the team, harness, wagon and man; especially when it is remembered that as there were then no commissioned agents stationed along the road to receive the grain, and forward it to the great marketing emporiums, the farmer was obliged to take it there himself, and thus risked the temptation to appropriate a part of the money for liquid returns which frequently floated off a goodly portion of the proceeds of the harvest, as, possibly, some of you have had occasion to know!

At the distance Marshall is from Detroit, with which market it is most naturally connected by geographical position, a bushel of wheat was thus reduced in value from $1 50 to ninety-nine cents, and were it worth only seventy cents in Detroit, the farmer of Calhoun county would expect to realize but nineteen cents per bushel for his labor and expense of raising it. So with corn; when it was worth fifty cents per bushel in Detroit, it could not from this distance, be marketed there and leave a profit, even though the raising of it cost nothing. But the locomotive and the iron track, stretching from point to point, across valleys, through hills, and over prairies, has changed all this by bringing the markets of the world to your doors. The bushel of wheat that realized to the producer but nineteen cents, became worth the whole seventy, minus only the railroad freightage, which at present is but about eleven cents per bushel, leaving in the hands of the cultivator a fair return for his investments in land and labor.

In regard to live stock, the change was still more to the advantage of the farmer. Cattle, which previous to the introduction of the railroads would not pay their own transportion, suddenly rose in value. But the enhancement of the value of native stock was not altogether satisfactory. It was soon found that a steer worth $60 or $70 at the Bull's Head in New York or Brighton, cost no more for carriage from the oak openings of Michigan, or the prairies of Indiana or Illinois, than one

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worth but $35 or $40, and shrewd dealers discovered that they could afford to pay a better price for good animals of improved breeds than they could for the raw-boned, thick-hided, half-wild brutes which grew up without care and with but little expense to the owner. The means of rapid communication now afforded, brought western farmers into closer competition with their more advanced brethren at the east, and rendered the introduction of improved breeds of cattle of the utmost importance.

Eastern agriculturists had already taken several decisive steps in the way of progress. Canals and other public works, by increasing the value of their lands, had also added to their taxes; and this, acting as a spur to their ingenuity led them to seek out a different and more profitable system of culture than that which their fathers had pursued.

They had encouraged the invention and use of new implements; they had tried the horse rake and horse hoe, and pronounced them indispensable. New cultivators, scarifiers, improved plows, and various other implements had come into use, and been adopted as necessary to aid in the labors of the farm. They had also learned that much was to be gained by the introduction of breeding cattle superior in all the points which make such animals valuable to the agriculturist; such as early maturity, capacity to put on flesh and fat, hardiness of constitution, and increased size and weight. All this the agriculturists at the east had learned and commenced to practice upon, and profit by, before the farmers of Michigan had fairly got out of the woods, or opened their eyes to the necessity of any such improvements. And when the snort of the locomotive announced that it had brought in its train, not only the cars laden with new comers seeking western homes, but also the markets of Boston and New York, and Liverpool, and London, close to the barn yards of Michigan farmers, it took some time for the tillers of the soil to realize the new duties it imposed upon them, the new relations it gave them, the new advantages it created for them, and the vast field of enterprise it opened before them for their benefit and enjoyment.

Many, as we have said, could not submit to these changes, and they moved away farther towards the setting sun; but others courageously looked the innovation in the face, and acknowledged the truth of the

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statement made by the New England sage, that this was a "day of progress and an age of improvement."

While the emulation created by a nearer proximity to market, as well as to their more advantageously situated neighbors in the eastern States, thus affected the outward condition of the western farmer, it made necessary also a corresponding change in his mental cultivation.

It became evident that an acquaintance with an entire new range of subjects was indispensable. To be a successful agriculturist, one must learn things that were never taught or even dreamed of by the plain, straight-forward, strong-handed farmers, who had hewn their way to a home, axe in hand, and who were still contented with the work of the old-fashioned wooden plow, and the equally antique, triangular harrow.

To acquire that knowledge, both mental and physical, which these new relations, new duties, and new privileges have made necessary, to give it a proper, practical application to the business of every day life, to make use of it in developing the resources of our land, calling forth its powers, building up its institutions, promoting all its great interests, and making our day and generation, one worthy to be remembered; this is what is meant by agricultural education.

Agricultural Education! How long is it since such a term came into use?

Let us for a moment take a backward glance at the state of agriculture amongst the earlier nations of the earth, and, observing its effect upon the human race for successive ages, trace the dawning idea of its fuller development by education, up to our own times.

We have proof that the ancients had acquired a degree of skill in cultivation, far back in the times when Medea and Bactria, and the plains of Assyria and Babylonia were clothed with the luxuriant crops which the teeming soil and warm climates of those lands awarded to the husbandman. But the ruins of their mechanical ingenuity, the works constructed to convey the waters of the Tigris and Euphrates into the distant furrows of fields that are now a desolation and a wilderness, are all that remain. Layard, speaking of these in the narative of his travels over that country, says, "the embankments of innumerable canals, long since deserted by their waters, crossed our path, bearing witness to the skill and industry which once made these barren plains one vast garden." Their implements of husbandry were rude, their method of

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tillage not progressive, and the result is what the traveller sees, an impoverished soil, and a degraded people amidst the ruins of past greatness.

The same, in effect, might be said of that fertile valley through which flows the mysterious and marvelous river, on whose banks stand the pyramids. The Egyptian husbandman knows nothing beyond the mere mechanical performance of those duties which experience taught his forefathers were necessary to obtain the simplest results; and though that land of corn from the fertile Delta to the cataracts of Nubia, has been known for fifty centuries to produce crop after crop, yielding the most ample returns, there has been no improvement in the implements used, the mode of working, whether in sowing, irrigating, harvesting, winnowing or storing the grain its exhaustless soil produces. The same crooked stick is used to scratch the ground now by the fellah, which was used when the foundations of the pyramids and of the sphinx were laid. The same rude *shadouf* and *sakia* which were then employed to irrigate fields on which no drop of rain ever falls, are still in use to raise the water from the Nile to the fields along its banks. In vain has the Assyrian, Persian, Greek, Roman, Saracean and Turk, in turn swept over the land; no progress has been apparent in its agriculture, and national degeneracy has been the inevitable consequence. While art and architectural science stand immortalized by the everlasting pyramids, the wondrous cities and magnificient temples built in honor of the gods, and which, century after century, whether in the full splendor of their pristine beauty, or in a state of grand and solemn ruin, have excited the curiosity and challenged the admiration of the world, we have no evidence that the idea of agricultural education for the purpose of improvement ever entered into the minds of those who, without the labors of the husbandman, could have raised no conquering army, won no victory, celebrated no triumph; and whose career would not have been worth recording, either on the rolls of papyrus which the antiquarian rescues from the catacombs, or with their mysterious hieroglyphs on their more lasting monuments of stone.

Both Jewish and Egyptian Legislators appear to have been governed by the sentiment expressed by the apochryphal writer, when he exclaimed: "How can he get wisdom that holdeth the plow—that glori-

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eth in the goad; that driveth oxen, and is occupied in their labors; whose talk is of bullocks?"

In that land whose bright galaxy of warriors, statesmen, historians, philosophers, poets, painters and sculptors, has for ages out-shone all others, we find nothing on record concerning the condition of agriculture, except the honors which were paid to the divinities who presided over the growth of the field, the orchard and the vineyard. What we learn of the festivals given in honor of the corn goddess Demeter, and the wine god Dionysus, is about all that is left us of the manners, practices and customs of the agricultural population of ancient Hellas. Their great festivals, such as the Olympic, Isthmian and Pythian games, at which the whole male population of the several States were often present, made no such display as we here behold. The only distinction which agriculture enjoyed, was the presence of the priestess of Ceres and her attendant virgins. We read of the swift-footed horses of Alcibiades and Hiero, but have no record that the art of breeding those wonderful coursers that won for the victor in the chariot races, the cherished crown which the proudest king deemed it an honor to bear off, was thought worthy of a single inquiry. While the swiftest runner was considered worthy to have his name recorded in letters of gold upon pillars of the marble of Pentelicus, the tiller of the soil was deemed unworthy of public notice by the great mass of the fickle Greeks. Historians, poets, and artists received honors due to their genius, but we read of no exhibition of the fruits of the earth to encourage improvements in agriculture. While the choicest oxen, the finest bulls, and the fattest rams, blazed upon the altars in honor of the gods, no word was ever said as to what reward was due to those whose patient and plodding care had reared and fattened the animals for sacrifice. To those who raised the fleeces and figs of Attica, the wheat of Marathon, the honeyed wealth of Hymetus, no praise was given. The gods fashioned from wood and stone—those forms of classic beauty, shaped by the genius of a Phidias or a Praxiteles—received divine honors, while the tillers of the soil, the men whose industry furnished the priests with their most valuable offerings, were esteemed but as a portion of the clods which composed the soil, and capable of no improvement. As a nation, the Greeks neglected the true ground-work of permanent national greatness, and the consequence was inevitable. They exist now amongst

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the ruins of a glorious, but too short-lived past. It was but too common with the ancients to consider the cultivation of the soil an unworthy occupation for those who aspired to defend their country, or to make war upon neighboring natians, and suited only to the capacities of an enslaved and conquered race. As a striking and ready example, we need only cite you to the condition and employments of the Helots amidst their Dorian conquerors.

What we find upon the pages of such writers as Cicero, Cato, Pliny, Varro, Columella and Virgil, relative to agriculture, gives us no reason to suppose that the Romans deemed it an art susceptible of improvement by the education of the agriculturist. The invention of new implements, the adoption of easier methods of cultivation, the better instruction of those who had the charge of landed estates, or the art of improving the breeds of domestic animals, seem never to have occupied their thoughts. We know that much of the patriotic virtue for which the earlier Romans were distinguished, is ascribed to the fact that they belonged to a class who tilled their own possessions with almost penurious care; and the names of some of their most illustrious families, as the Fabii, the Lentuli, the Pisones and Cicerones were significant of their origin from amongst the farmers in the neighborhood of the Eternal City. But whatever tendency there might have been towards agricultural improvement, either in the citizens or their government, it was checked in the outset by the heavy drafts made on the population for their wars of conquest, by which freemen were taken from their homes, and in return the victorious legions supplied their places with enslaved prisoners from foreign lands: and from the introduction of that system we may date the commencement of Roman degeneracy.

We have no record of any nation ever having improved its agriculture, or perpetuated its national greatness, while the cultivators of the soil were in a state of ignorance or thraldom. In confirmation of this, I might, if necessary, still further refer you to the condition of Europe during the dark and middle ages, when the relation of the tiller of the soil to the estate on which he labored, and to its owner, was aptly expressed in the terms by which he was recognized in law; *vassal, villein, thrall, serf, bondman.* During the prevalence of the feudal system, the landholders by their tyrannical and incessant demands and drafts upon the agricultural population, entirely precluded the possibility of improve-

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ment in that class, and agriculture was in its most degraded state. From this condition it did not revive till the necessities of commerce in England gave it an impetus in the reigns of Henry VIII., and of Elizabeth, after the civil wars had ceased, and men began to feel that there was some security against the power and grasping avarice of the rapacious nobles, who had heretofore reaped what the husbandman had sown. But it was not till after the middle of the last century, when some progress had been made in the two sciences of Chemistry and Geology, that as an art, agriculture began to show unmistakable signs of that vitality which now pervades it, and which, gaining as it does each day, additional energy and power, promises soon to place it where it belongs—first on the list of sciences, itself the life and mainspring of all others.

Chemistry with her wonderful powers of anaylsis and comparison, and with such priests at her shrine as Scheely, Priestly, Lavosier, Galvani, Volta, Berselius, Sir Humphrey Davy, and a host of gifted men of a more recent date, to explain her mysterious processes, has done much, and will still do much more for agriculture. Geology, too, with an equally illustrious array of talent to aid in its development, has toiled among rocks of error, surmounted Alps of stubborn difficulties, and steadily progressed through strata after strata of ignorance and superstition, till it not only stands of itself a science with its own symbols, and its own language, but it has also lent its aid in laying broad, and deep, and permanent, the foundations of a thorough agricultural practice. While these sciences were being moulded into tangible forms from the chaotic masses of facts which had been discovered and brought into contact from time to time by the intelligent minds of the age, it was hardly possible that agriculture so intimately connected with both should lie dormant. Indeed it was the necessity of infusing new life into the latter that aroused the spirit of inquiry and research which so far perfected the former. The lands worked were yearly becoming less productive, and the prospects were that the crops would soon be insufficient to sustain the increasing population. A resort to science and the application of principles there unfolded, led to experiments which were successful in restoring fertility to the worn out soil. These successes awakened a new interest in the cause of agriculture. It became a study, a fruitful field of new and exciting experiments, which soon attracted the attention of men of genius,

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and enlisted their active services in its behalf. As the benefits arising from the adoption of popular improvements became more apparent in the increased fertility of the soil and the abundant harvests, the necessity of making corresponding improvements in the various animals reared for sale or use, began likewise to force itself upon the minds of agriculturists. The art of breeding became a part of their study. Some turned their attention almost wholly to that subject, and became successful breeders of those superior varieties which are now not only spreading over all England, but the United States.

No one can deny that it is to Great Britain we must look for examples of the most successful application of that system of agriculture which is taking advantage of scientific discoveries and mechanical inventions to make the land repay by its increased productiveness, the immense amount of capital expended upon it. The drill system, alternate husbandry or rotation of crops, drainage, the application of special manures, and the use of the sub-soil plow, have each and all been carried into practice there on the most extensive scale. Geology, chemistry, zoology, botany, entomology, comparative anatomy, animal and vegetable physiology, hydraulics, mechanics, meteorology, and book-keeping are there each and all called upon to aid in rendering the education of the farmer perfect. They are made to assist him in developing soils and bringing them to their utmost fertility, and also insuring the highest profit, by surveying, draining, manuring, cultivating and securing the crops, with the least possible waste of land, time, labor and capital. They aid him too in breeding, rearing, feeding, managing and marketing stock, as well as in rendering the produce of the dairy of the best quality and the utmost profit.

Novel experiments in various branches of husbandry have recently given a new and enthusiastic impulse to the cause of agriculture in Great Britain. But as yet, as far as the eastern continent is concerned, this enthusiasm is, with few exceptions, limited to that island, and the prosecution of those extraordinary experiments confined to a class who have all the advantage of wealth and leisure. In speaking of these advancements, therefore, it must be remembered how small a part of the world England is, and how many centuries elapsed after her existence as a nation, before even she began to understand where her true strength lay, and to direct her attention to that noble pursuit upon whose proper

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development is based the strength, and intelligence, and independence of any people. Look over the monarchies and despotisms of entire Europe, and you look in vain for anything like general education amongst the tillers of the soil. The very class from which those despotisms draw their life, and their power to oppress, have not sufficient intelligence to maintain their independence should it be granted to them. *Would* this be so, *could* it be so, if they were not degraded almost to a level with the brutes that share their labors? Their manner of cultivation and their implements are sadly at variance with the pretensions to civilization made by the governing class. An American resident in Paris, the very centre of European civilization, writing from that place during the past summer, says: "I sometimes wonder that anything grows in France, the tools used in gardening and in agriculture are so uncouth and unhandy." And another traveler, an accomplished writer, and an experienced and accurate observer, who within a few years past has visited nearly all the countries of Europe for the purpose of noting the improvements in agriculture, lately declared in an address before the Agricultural Society of New York, that while in one or two localities where schools had been established, much good had been effected, yet, with few exceptions, in spite of an imposing array of institutions and professorships, there was very little improvement in the general agriculture of the country. And this is the testimony of all travelers.

In our own country, we find that political and social institutions make a wide difference in the condition of its farmers, compared with those of Europe. The very fact of their self-dependence gives them a shrewdness of discernment and an aptness of application for which the European tenant, who is in reality the practical agriculturist of that country, can never know the necessity. This fact will also contribute greatly to the rapid diffusion of scientific agricultural education, when it is once known that it can be obtained, and to what extent it can be applied with advantage to the business of every day life.

There is a spirit of emulation and inquiry abroad in the land; and this spirit is daily becoming more prevalent and inquisitive, and less easily satisfied with ordinary operations and ordinary results. There are secrets in nature, influencing the success or failure of the farmer, which only science can discover; and it has been the study of some of the best minds of the age to investigate the laws by which she governs her

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most successful operations; to pry into the secrets of her laboratory, to watch, to experiment, till by patient toil and research they have in a degree become masters of the arts by which she excels. Through the instrumentality of the press, the fruits of their labors, like the good seed of the thrifty and generous-handed husbandman, have been sown broadcast over the land.

See what has been done for agriculture by these means within the last twenty years. In 1835 there was but one periodical devoted solely to its interests in the United States; now they are almost as numerous as the States themselves. One of the first efforts made to arouse the minds of farmers of this country to their own interests was that of the few, but influential and persevering men who organized the New York State Agricultural Society, in 1838. Those men had observed the good effects of the Royal Agricultural Society of England, and resolved to awaken in their own State and country a spirit of inquiry similar to that which had been aroused by their English prototype. The result of that effort is well known. The first step was taken in the grand march of improvement; State after State came into the ranks; communities and counties marshalled their companies of independent yeomanry and wheeled into line; now, all are actively engaged in battling the common enemy, the allied legions of ignorance and error. At their annual gatherings on public parade grounds like this, they exhibit the trophies of their victories, compare the spoils they have won and incite each other to bolder exploits and nobler efforts in the future. The farmers of twenty years ago enjoyed none of the advantages these social gatherings afford. They had no opportunity of learning what you may learn each year, from the published reports of such societies, in relation to the improvements being made in the methods of tilling the soil; or of examining new implements, or comparing the merits of the various breeds of foreign and domestic animals. They leveled the forest, broke up the sod, and prepared the way for you.

Compare such a scene as you here behold, with those witnessed by the pioneer of twenty years ago, and ask yourselves if, as a county, your progress is in proportion to your increased advantages. Truly, with regard to soil and situation, 'the lines have fallen to you in pleasant places; you have a goodly heritage." Nature has done her part and he who imagines he could improve on her handiwork must think

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himself a being of superior order. Mechanical art and inventive genius have done their share by bringing the markets of the world to your doors on the iron track, and by giving you tidings from distant lands by the spirit-like rappings of the electric telegraph; implements have been furnished for your hands and thoughts for your brains; have you made them subservient to your interest—which is the interest of agriculture—which is the interest of your country? You have been progressing, it is true; you could not well do otherwise with these improved means of communication open to you; but are you prepared to take advantage of all the facilities within your reach, to increase your own knowledge by the addition of valuable and successful experiments, that you may transmit it, thus enriched, to your children?

In the simple art of growing grass, is there one here who feels satisfied that he has arrived at perfection? You think you have done well when you have made your fields average three tons to the acre, but can any of you say there is any reason why, by the proper application of skill and capital, you might not as well average five tons as three? If by some improved system of cultivation, you might increase the products of your grass lands sufficiently to enable you to send from each acre, two head of improved cattle annually to the New York market, instead of the one or half or three-quarters of one you now do, would not that, besides being something to your own private advantage, be worth telling of, even in presence of such an assembly as this? I believe that it will be done in a few years; and that such is the spirit of emulation and progress amongst the farmers of Calhoun, it will be done by some of them. You may deem this visionary, but it is no more so than what has already been accomplished by you might have seemed, fifteen or twenty years ago. Let your memories run back to that period; think what the ground you stand upon looked like then; and think if, looking into the future then, you could have realized the possibility, in so short a time, of an exhibition like that we have here witnessed today! Could you have believed that the wilderness would have been made to yield such superior productions in such abundance, or that you could have made such a goodly show of blooded cattle, horses, sheep and swine; or that it would have entered into the minds of men to contrive such implements as you here behold, for the use of agriculturists who had taken up their abode, as it were, on the very outskirts of

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civilization? Where then were the reaping and mowing machines, the cultivators, the plows, the harrows, the threshing machines and horse powers, the construction of which adds so much to the industrial wealth of the country, aside from the advantage their possession affords you by increasing your power of tillage. The idea that such things might be in your day, would have seemed visionary to you then; but believe me, you have not seen the end yet.

Let us now take a brief view of the present condition of agriculture in Calhoun county; indeed, I ought not to confine myself to this county alone, for the farmers in all the southern and central portions of the State are in nearly the same relative position—all more or less flourishing, as they have been able to profit by the advantages which the general progress of the country has placed within their reach. I am tempted here, by way of introduction, to repeat a remark recently made by a friend of mine who is here with you to-day. In speaking of your prosperity now, he exultingly declared that the time had gone by, when to meet the expense of reaping his crops, it frequently happened that the farmer's only resource was a chattel mortgage on his standing grain; and he rejoiced at the idea that such a legal instrument would soon become so obsolete that even the older limbs of the law would scarcely be able to recall the phraseology necessary to make one out!

The times that made such an expedient a necessity to the farmer are indeed past. And now, in passing along your smooth country roads, bounded by neat, well-built fences, or by long lines of walls composed of stones gathered from the adjoining fields, we see those fields almost free from the remains of the original forest, with scarcely a stump to disfigure their green expanse, clothed with waving crops, or luxuriant with rich pasturage, or the cultivated grasses; and when in those pastures, we behold flocks whose progenitors came from the royal stocks of Rambouillet or the Escurial, or from the still more distant and finer wooled Saxon races; and when we discover the grazing herds to be of the improved breeds which it has been the care of the wealthy landholders of Great Britain to originate and rear; when orchards of choice fruits greet our eyes, and well arranged yards, where cribs, granaries, stables, sheds and barns bear ample testimony to the thrift and economy of the proprietor; and lastly, when we see the residences themselves, in all the elegance of their fair proportions, adorned by the skill and

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taste of the architect elaborate with ornament without, and fitted up with the comforts and luxuries of life within—we may well judge that agriculture has outlived the doubtful period of its infancy and is ready to enter upon a new phase of its existence.

This is a fair picture of your prosperity here, and a type of the condition of agriculture generally throughout those portions of the State which have been longest subjected to cultivation. Muscular strength, and what knowledge you possess, have wrought out their good effects; but does not experience teach you that still to advance, more capital must be applied; and that to obtain more profitable returns for increased expenditures, more mental energy must be thrown into the occupation of the farmer than has ever yet been devoted to it? That mental energy must be nourished and strengthened by giving to it the knowledge for which it hungers—the learning necessary to its existence; and in order that this may be done, is it not evident to you that we must summon to our aid a thorough practical system of agricultural education? Let that summons be issued by you; see you to it, that it is respected and obeyed; then will the present farming population of Michigan not only prove themselves worthy successors of their honored pioneers, but they will be able also to perform something worthy of being remembered.

We often hear of instances where the best lands of our own State, as well as of others, have deteriorated; where the great staple crops do not grow as luxuriantly as formerly, or average as large a yield of sound grain to the acre. Now, the reflective farmer knows very well the limit to which his own knowledge and experience will lead him in attempts to remedy such an evil, but is not sure how far beyond that he may venture with safety. Progressive in his nature, he regrets his want of that knowledge which might serve as a guide beyond the circle to which he has all his life been confined. It is true he may feel that even if the means to gain it were now at hand, it would be too late for him to profit by them; but he has sons and daughters who will soon occupy his place, and he knows that to be successful in the future, they must be wiser than he has been. Besides these, there are *other* instances where further light and knowledge are required. In close proximity to some of our most thriving towns, and lying around, and among the improved lands, occupying often most valuable locations, are large tracts yet un-

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touched by the hand of labor. Untouched, not because they are valueless; the farmer knows there is wealth under the bogs and standing pools of those wild morasses, but how shall he set about to make it available? He, too, lacks the knowledge which his brother on the exhausted field is wanting. But where shall they go to obtain that knowledge? You all know it is not to be had in the State; in fact it is not to be had to its full measure in the country. To improve these swamps properly and profitably will require on the part of the agriculturist an acquaintance with practical engineering, and a knowledge of hydraulics, and of surveying applied to the art of draining. He must understand, too, the nature of the vegetation which now occupies those lands as well as of that he would cultivate on them, which he cannot do without a thorough knowledge of botany, vegetable physiology, and the principles and application of agricultural chemistry. By these means alone can be made available the fertilizing properties which lie like outspread and untold treasures of ungathered wealth all around us, in every hollow and basin, where they have been accumulating for ages. We would stock the rich fields into which those swamps should be converted, with flocks and herds, whose welfare demands that we should be prepared to guard them against disease, and provide for all their wants; to do this, is it not necessary that we should also have the opportunity to learn something of animal physiology and veterinary science and practice? All this knowledge, or the means to obtain it, should be at our command. Those who preceded us did not need it; we have not yet felt the want of it; but does not a wise foresight, a prudent sagacity, tell us that the time is approaching—nay, is now at hand—when it will be found indispensable to us, as well as to those who are destined to take our places? And can we be satisfied that we have accomplished all that our position at the present day requires of us, if, *with the means in our hands*, we permit to be neglected the great first duty of furnishing to the rising generation an adequate and fitting opportunity to obtain scientific and practical instruction in all that relates to the theory and practice of agriculture? I say, *with the means in our hands;* for there never was a State more richly endowed with the means of giving to her sons and daughters such instruction, than is, at the present time, the State of Michigan.

Our State needs an Agricultural College. That college should be

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founded on a basis separate from, and independent of, all others. Such an institution cannot be established without an ample endowment; and what more ample endowment could be desired than the gift which the United States government has already made to Michigan of the swamp lands within her borders? This grant is made with the simple understanding that it is to enable the State to construct the levees and drains necessary to reclaim those lands and render them susceptible of cultivation. Five million two hundred and seventy-six thousand acres have already been confirmed to the State, and more are still to be set off to her. Of this immense territory, as yet, but one hundred and forty-four thousand eight hundred and fifteen acres have been sold, amounting to the sum of $114,607—$53,597 26 of which has been paid into the Treasury, leaving, outstanding, but drawing interest, some $61,000. For this money the State has no immediate pressing use. Should the whole of the lands be sold at the same rates as those already disposed of, there would be a fund of over four millions of dollars at the disposal of the State. Surely nothing could be more reasonable than that a portion of this immense fund should be set apart for the purposes of education, when that education is designed to be of such a nature as would tend to increase the value of those very lands which furnish the endowment of the institution where it is obtained. Would it not be better, by some organization on the part of the farmers of the State, thus to devote a part of the proceeds of these land sales to the increase and diffusion of knowledge adapted to their own necessities, than to have it lie in the State treasury, a bait and a temptation to greedy and grasping political adventurers? And are the farmers of the State not entitled to at least four or five per cent. out of this swamp land fund, for the purposes of agricultural education, when the very investment of this per centage will, in a few brief years, double the principal from which it may be taken.

The establishment of an institution that would supply our present wants, ought not to cost over $50,000, and need not, if managed with that economy which a prudent individual of good judgment would deem necessary in his own business. Give it a farm of a thousand acres, give it all the necessary buildings, and the professors competent to teach all that is required, and is it too much to say, that after the first initiatory years, it would annually send out at least two hundred graduates,

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well versed and skilled in the arts that would enable them successfully to cultivate whatever lands might come into their own possession; capable men, also, into whose hands might be entrusted the drainage of those very swamps which the State, by its acceptance of the gift from the General Government, has engaged to improve.

I believe the whole annual cost of an institution like this, for salaries, professors, and apparatus, after it reached its highest possible development, would not be over twelve or fifteen thousand dollars. Should the State refuse to grant a sufficiently large appropriation, the balance might easily be made up by stock subscriptions from the friends of the pupils and of the institution. In any event the necessity for such a college is beyond all question,—I say let the experiment be tried. To make it answer the end in view, it is of vital importance that the school system and dicipline should be thoroughly practical. The students ought to be trained in a course of actual practice, in the management of tools, implements, machines, animals and land, in the tillage of fields, the application of manures, the sowing of seed, the raising of crops, getting them ready for market, and their sale; and also in the raising, fattening and marketing of stock. No hired help should be employed to do any part of even the most toilsome and most disagreeable labors; but the several classes should feel a pride in endeavoring to excel each other in the management of the sections committed to their charge.

In the improvement of land by draining, the students should not only be taught the art of surveying, levelling and laying out the drains, but with pick and spade in hand, let them open the trenches, lay the tiles, and perfect the work. If horse power is used, let them learn the art of managing the machines. They have a right to this knowledge, and should not submit to be defrauded of it, as too many have been.

I do not believe in that species of agricultural education which is taught only by lectures, or by study in the closet. What can the indoor student know of the qualities of soils, the lay of the land, the nature of animals, or of the various expedients to which the fluctuations of the weather may drive the quick-witted and active out-of-door farmer? or last, and not least, what would such a student know of the market value of his crops, or of the state of the markets themselves? It is as preposterous to say that a farmer can be made without the practice of his business, as that a divine can be made without the study

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of the Scriptures. The military establishment at West Point is a standing comment on the folly of the course that has heretofore been pursued in our academies and institutions of learning in regard to agricultural education. There, no cadet is considered worthy of promotion to the most trivial command in the regular army, till he has been well drilled in the performances of all the duties of the common soldier. Does not common sense teach us, that at least equal care and pains should be taken with the education of those who form a much more numerous and necessary class of community, and upon whose success so much of the happiness of life depends? Hitherto what has been taught of agriculture, has generally been made to come in after the regular course of study, as though it were only of third or fourth rate importance; indeed, as it was only in theory at least, it seemed to make very little difference in the end whether it was studied at all or not.

Agriculture requires, and deserves, and calls for an institution *of its own*. Let it have one! It is in your power, farmers of Michigan, to establish one which will be an honor to yourselves and your State. Your educational funds have already been too long, and too exclusively devoted to fitting out students for the learned professions, theology, medicine, and jurisprudence. It is time there should be a change. I would cast no reflections on the learning, talent and skill engaged in these professions; nor do I ask you to pull them down. That is not necessary. They are institutions built up by time and popular opinion, and are subject to them; and whilst they deserve to be sustained, they will be, and with no grudging hand. But it is for you to rear another, not to say more honorable, but of as great utility, and more peculiarly your own. The State has neglected your interests in this respect; no care has been taken to aid in your advancement; but now the means are in your power; use them in such a manner as to elevate your calling in your own eyes, and the world will soon learn to do it honor. These hints are not thrown out as though such an establishment as I speak of, were some visionary project of an imaginative brain—some far-off, impracticable theory for you to speculate upon; I hope to see it built in reality, and these suggestions are intended for practical use. They are prompted by the necessities of the times. Farmers of America must keep pace with other branches of industry and art, if they would not have their nation add another to the list of those who have flourished

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for a season on the fat of the land, run a career of transitory splendor, and having robbed the earth of its power to sustain them, withered away like a tree without root, leaving only the stark and blighted skeleton of what they might have been, a lasting memorial of their own folly. And thinking-men are waking up to these necessities; from every part of the Union they are calling for light and knowledge on the subject of agriculture. The idea that farmers must be *educated for their occupation* is everywhere rapidly gaining ground; and in uttering these sentiments, and urging this matter upon your immediate consideration, I am but giving expression here to what is becoming the popular opinion of the times.

Members of the Society, and farmers of Calhoun! Your position is an enviable one! Situated near the centre of the State which is rapidly developing its wealth and its capacities; with a climate sufficiently severe in the extremes of its summer suns and wintry frosts to call forth your energies in counteracting its effects; connected, directly, at all seasons with the east and its emporiums of export and import; with a great iron thoroughfare in your midst, along which pours, in a ceaseless tide, the emigration and commerce of the growing west, and which the future promises will, at no distant day, be the means of connecting you with the regions that border on that mighty ocean whose limitless expanse is but just beginning to be whitened with the sails of commercial enterprise; with States and communities advancing, and great national interests arising on all sides; you cannot stand still even if you would. Bear in mind then your obligations to those who have gone before you, the duties you owe to yourselves and your successors. The experience of all ages tells you that where the mental cultivation of the tiller of the soil has been neglected—where labor has not been honored—there have the people and the land together sunk in the scale of civilization and importance. Wherever men have held in contempt that great law which the Omnipotent gave to the first born of the earth when he declared: "In the sweat of thy face shalt thou eat bread;" there have the nations fallen; and no wealth or splendor has sufficed to save from desolation and ruin, the land where the obedient subjects of that law have been despised and dishonored. While the earlier nations respected that divine command, they increased in strength and might and majesty, till their glory became the pride of mankind! Their ru-

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lers and their men of power neglected to honor it; and the very grass refuses to grow on the mouldering ruins, the deserted plains and barren deserts, which now mark where they once flourished in all their pomp and magnificence. The plains of Shinar—the great valley of the Nile—the hills and vales of classic Greece—the slopes of Sicily, once the granary of the mistress of the world—the pontine marshes and maremna of Italia, all speak to us from the darkened past of the consequences of contempt for that eternal principle by which our tenure of the soil—fertile as when God gave it to us—is continued from age to age; and Europe as she is, stands a living and present witness, that there the mandate has not been, and is not yet respected! Why else do her oppressed and starving crowds rise up and seek our shores? and from what other cause springs that constant fear of dissolution which makes her banded despotisms tremble? Upon the progress and prosperity of agriculture depends the permanence of all other progress. Arts, sciences and commerce may all reach a certain point, may all live and thrive for a time on the stimulus accorded them by despotic power—that ability to trample labor under foot—to repress the longing and earnest desire for knowledge in those who live by it, by condemning them to hopeless and helpless ignorance; but the reaction comes—the "baseless fabric" of their unsubstantial greatness falls—corruption and desolation are their end. But with an agricultural population, whose "business is improvement," no tyranny can ever thrive; liberal institutions must prevail, and freedom of speech and action be the inheritance of the tillers of the soil.

An old Greek myth represents that from a serpent's teeth, sown by the Theban lawgiver on the soil he had selected for his home, sprang the men who built and guarded his city; so from the teeth you shall wrench from the dragon of ignorance will spring the men who will guard the institutions you bequeath to them.

Men of Michigan! to you is committed the sacred trust of educating your youth to fit them to perpetuate unimpaired, that prosperity of which your fathers and yourselves have laid the foundation. The General Government has placed in your hands the means of establishing a noble institution, which, if wisely conducted, may be the pioneer and prototype of many others which shall spring up in different and distant parts of this wide spread Union. You have it in your power to elevate

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that noble pursuit in which you are engaged; to extend its usefulness, to add new treasures to the general wealth, to give salubrity to localities now deserted, and to increase the productiveness of the land you have chosen for your homes. From your midst go forth the young men whose enterprise and talents and genius build up our cities, and add to the wealth and renown of our State in mercantile and professional life; let them go with minds imbued with respect for your occupation, and a love for the rural scenes amidst which they were nurtured. To you again will return the physician from his office, the divine from his desk, the judge from his bench, the merchant from his counting-room, bearing the wealth which has repaid years of arduous toil, the reward of industry, to expend in the quiet of country life. Make your homes and neighborhood attractive to men of mind and capital, and the professions themselves, by their wealth and influence and intelligence, shall aid in advancing your interests.

Farmers, the destiny of the State rests with you! Place Michigan where she belongs, in front rank with the most advanced of her sister States in that noble pursuit to which the spirit of the times so strongly invites; then shall our freedom as a people be perpetuated, the integrity of our institutions be sustained, all our great interests promoted; and we, too, shall leave behind us a monument more lasting than one of brass or stone—a name and memory to be honored to the latest generation.

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CASS COUNTY.

To J. C. Holmes, Esq., *Sec'y of the Mich. State Agricultural Society:*

Sir—The following is a copy of the proceedings of the Cass County Agricultural Society for the year A. D. 1854:

At a meeting of the Executive Committee of the Cass County Agricultural Society, held at the court house in Cassopolis, on Saturday, the 20th day of May, 1854, pursuant to public notice, present, W. G. Beckwith, President, and D. M. Howell, Secretary.

On motion, the following persons were appointed a committee to prepare a list of premiums and appoint the several judges, and also to make rules and regulations by which the ensuing fair is to be governed; which committee is to meet on the second Saturday in June next.

On motion,

Resolved, That Walter G. Beckwith, Pleasant Norton and David M. Howell, be appointed a committee to prepare the ground for the next annual fair and make all such other arrangements as may be necessary.

Resolved, That the next annual fair be held on the first Tuesday and Wednesday in October next, at the village of Cassopolis.

Resolved, That an admission fee of ten cents be charged for admittance to all persons except members of the society and their families.

Resolved, That Isaac Hull, E. M. Strong and Dan'l S. Jones be appointed a committee to take charge of the fair ground.

Resolved, That the Hon. George Redfield be invited to deliver the annual address before said society.

The committee appointed to prepare a list of premiums and appoint the several judges, and to report a set of rules and regulations by which the ensuing fair is to be governed, report the following, to wit:

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LIST OF PREMIUMS.

FARMS.

Best improved farm,	$10 00
2d "	5 00

Judges.—Hiram Jewell, James Bonine, Wm. H. Bacon.

CATTLE.

Best pair of working cattle,	$5 00
2d " "	3 00
Best 3 years old steers,	4 00
2d 3 " "	2 00
Best Devon bull 2 years old and over,	5 00
2d " " 2 " "	3 00
Best " cow,	3 00
2d " "	2 00
Best " heifer,	3 00
" " bull calf,	2 00
" Durham bull,	5 00
2d " "	3 00
Best " cow,	3 00
2d " "	2 00
Best heifer,	3 00
" calf,	2 00
" grade bull,	5 00
2d " "	3 00
Best " cow,	3 00
2d " "	2 00
Best " heifer,	3 00
" " calf,	3 00
" pair fat cattle,	5 00
" milch cow,	3 00
2d "	2 00

Judges.—Archibald Jewell, Hamiel Burns John Nixon, Jonathan Gard, Wm. R. Sheldon.

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HORSES.

Best blood stallon,	$6 00
2d best blood stallion,	4 00
Best stallion,	6 00
2d best stallion,	4 00
Best 3 years old colt,	4 00
2d best 3 years old colt,	3 00
Best 2 years old colt,	3 00
2d best 2 years old colt,	2 00
Best yearling,	2 00
2d best yearling,	1 00
Best brood mare and colt,	5 00
2d best brood mare and colt,	3 00
Best sucking colt,	2 00
2d best sucking colt,	1 00
Best pair draft horses,	5 00
2d best pair draft horses,	3 00
Best pair carriage horses,	5 00
2d best pair carriage horses,	3 00
Best buggy horse,	3 00
2d best buggy horse,	2 00
Best saddle horse,	3 00
2d best saddle horse,	2 00

Judges.—Stephen D. Wright, John Letts, Jacob S. Reese, Thomas M. N. Tinkler, and William Jones.

SHEEP.

Best Merino buck,	$4 00
2d best Merino buck,	2 00
Best 5 Merino ewes,	4 00
2d best 5 Merino ewes,	3 00
Best 5 Merino lambs,	3 00
Best Saxon buck,	4 00
2d best Saxon buck,	2 00
Best French and Spanish buck,	4 00
2d best French and Spanish buck,	2 00

Judges.—Franklin Brownell, William H. Bacon, and Jonathan Gard.

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SWINE.

Best boar,	$2 00
2d best boar,	1 00
Best sow and pigs,	2 00
2d best sow and pigs,	1 00

Judges.—Hiram Jewell, Archibald Jewell, and Joseph Jones.

PRODUCTS OF DAIRY.

Best 10 lbs. butter,	$1 00
Best 10 lbs. cheese,	1 00

Judges.—Mrs. Justus Gage, Mrs. Geo. Meacham, Mrs. Ruben Allen.

FRUIT AND VEGETABLES.

Best ½ bushel wheat,	$0 50
" ½ bushel corn,	50
" ½ bushel apples,	50
" variety apples,	50
" peck peaches,	50
" variety peaches,	50
" " pears,	50
" " plums,	50
" " grapes,	50
" ½ bushel Irish potatoes,	50
" ½ bushel Sweet potatoes,	50
" variety garden vegetables,	50

Judges.—Justus Gage, Augustine Reading, and Leander Tompkins.

AGRICULTURAL IMPLEMENTS.

Best double waggon,	$2 00
" buggy,	2 00
" plow,	1 00
" corn cutter,	1 00
" fanning mill,	1 00
" grain cradle,	1 00
" horse rake,	50
" straw cutter,	50
" cheese press,	50
" churn,	50

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Best two horse harrow,	$2 00

Judges.—Hubbell Warner, Hubbard Thomas, John S. Gage, Chas. Jones, Cyrus Bacon.

DOMESTIC MANUFACTURES.

Best 10 yards wool cloth,	$1 00
2d best 10 yards wool cloth,	50
Best 10 yards carpet,	1 00
2d best 10 yards carpet,	50
Best 10 yards rag carpet,	1 00
2d best 10 yards rag carpet,	50
Best hearth rug,	50
Best coverlet,	1 00
2d best coverlet,	50
Best quilt,	1 00
2d best quilt,	50
Best pr. wool stockings,	50
Best 10 yards linen,	1 00
2d best 10 yards linen,	50

Judges.—Mrs. W. G. Beckwith, Mrs. D. S. Kingsbury, Mrs. L. D. Tompkins, Mrs. Wm. H. Bacon, Mrs. M. G. Sage.

The committee last above named, are also Judges of fancy articles, muslin, work, painting, &c. On all articles under that head premiums may be awarded at the discretion of the committee, not exceeding two dollars.

MISCELLANEOUS ARTICLES.

Best saddle and bridle,	$1 00
" double harness,	2 00
" single harness,	1 00
" side upper leather,	1 00
" side harness "	1 00
" pair men's boots,	50
" pair women's shoes,	50
" 10 lbs. maple sugar,	50
" box honey,	50
" bee hive,	50
" horse shoeing,	1 00

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Best lot of tin ware, ... $1 00
2d best do 50
Best ½ doz. cane bottom chairs, ... 1 00
" common chairs, ... 50
Best fall-leaf table, ... 1 00
" stand, ... 50
Judges—H. Garwood, S. D. Wright, John Letts.

FOWLS.

Best coop of fowls, ... $1 00
2d best do 50
Judges—A. Kingsbury, J. Lofland, C. Spanahan, Joseph Smith.

LIST OF PREMIUMS

Awarded at the Annual Fair, held at Cassopolis, Oct. 3d and 4th, 1854:

CATTLE.

Oxen, Daniel McIntosh, 1st premium, ... $5 00
" " 2d " 3 00
Steers, 3 years old, Joseph Crane, 2d prem., ... 2 00
Yearling steers, William Sears, 1st premium, ... Transactions.
" Avery Smith, 2d " ..... "
Devon bull, Reuben Allen, 1st prem., ... 5 00
Devon cow, " " 3 00
¾ " " ..... Transactions.
Devon bull calf, " ..... Diploma.
Devon heifer calf, " ..... "
Durham bull, Wm. Jones, 1st prem., ... 5 00
" P. Mars, 2d prem., ... 3 00
Durham cow, Chas. Jones, 1st prem, ... 3 00
" Jas. E. Bonine, 2d " 2 00
Durham heifer, 2 years old, Arch. Jewell, 1st prem., ... 3 00
Durham hiefer, 1 year old, 1st prem., ... 2 00
Durham calf, Arch. Jewell, 1st prem., ... Transactions.
" bull, 1 year old, Arch. Jewell, 1st prem., ... 2 00

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Durham calf, Wm. Jones, 1st prem., ... $2 00
" " " 2d prem., ... Transactions.
Grade bull, Justus Gage, 1st prem., ... 5 00
" " W. H. Bacon, 2d prem., ... 3 00
" cow, Daniel McIntosh, 1st prem., ... 3 00
" " " 2d prem., ... Transactions.

HORSES.

Blood horses, Alex. Haskins, 1st prem., ... $6 00
" " Wm. Manuel, 2d prem., ... 4 00
Stallion, Lewis Rinehart, 1st prem., ... 6 00
" Robert Shidler, 2d prem., ... 4 00
" 3 years old, L. Beams, 1st prem., ... 4 00
" 3 " " Lorenzo Painter, 2d prem., ... 3 00
Colt, 3 years old, B. A. Tharp, 1st prem., ... 4 00
" 3 " " Isaac Hall, 2d prem., ... 3 00
Stallion, 2 years old, Uzziel Putnam, 1st prem., ... 3 00
" 2 years old, Thomas Peak, 2d prem., ... 2 00
2 year old colts, Peter Shaffer, 1st prem., ... 3 00
2 year old colts, Lucius Rathbun, 2d prem., ... 2 00
Yearlings, I. A. Shingledecker, 1st prem., ... 2 00
Yearlings, Daniel Fisher, 2d prem., ... 1 00
Brood mares, Chas. Jones, 1st prem., ... 5 00
" " Jas. Girt, 2d prem., ... 3 00
Sucking colt, L. Rathbon, 1st prem., ... 2 00
" " Jas. Girt, 2d prem., ... 1 00
Draft horses, Jas. Reynolds, 1st prem., ... 5 00
" " L. Blackmar, 2d prem., ... 3 00
Carriage horses, S. D. Wright, 1st prem., ... 5 00
" " John Letts, 2d prem., ... 3 00
Buggy horses, John Adamson, 1st prem., ... 3 00
" " Jas. Townsend, 2d prem., ... 2 00
Saddle horses, P. Norton, 1st prem., ... 3 00
" " J. W. Nicholson, 2d prem., ... 2 00
Match horses, Amos Jones, 1st prem., ... 5 00
" " Daniel Fisher, 2d prem., ... 3 00

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SHEEP.

Spanish ewes, Jas. E. Bonine, 1st prem., ... $4 00
" " Chas. Jones, 2d prem., ... 3 00
" lambs, Jas. E. Bonine, 1st prem., ... 3 00
" buck, Nathan Jones, 1st prem., ... 4 00
" " W. H. Bacon, 2d prem., ... 2 00
French buck, Wm. Jones, 1st prem., ... 4 00
" " Nathan Jones, 2d prem., ... 2 00
" and Spanish ewes, J. Jones, 1st prem., ... 4 00
" " " buck, W. H. Bacon, 1st prem., ... 4 00
" " " " " 2d prem., ... 3 00
Saxon buck, Jas. E. Bonine, 1st prem., ... Transactions.

SWINE.

Suffolk boar, B. G. & E. Buel, 1st premium, (no competition,) Trans.
" " 2d " " Diploma.
Suffolk sow, " 1st " " Diploma.
" pigs, B. G. & E. Buel, 1st premium.
Boar, Parker Mars, 1st premium, ... $2 00
" Wm. Jones, 2d " 1 00

PRODUCTS OF THE DAIRY.

Butter, Mrs. W. H. Stran, 1st premium, ... $1 00
" Mrs. W. G. Beckwith, 2d premium, ... 1 00

GRAIN, FRUIT AND VEGETABLES.

Wheat, Archibald Jewell, 1st premium, ... $0 50
Corn, Jas. E. Bonine, " " 50
Apples, D. T. Nicholson, best ½ bushel, 1st prem., ... 50
" Harvey Dussny, best variety, 1st premium, ... 50
" D. T. Nicholson, variety large and fine, ... Diploma.
" Allen Dunning, largest variety, 1st premium, ... Trans.
Pears, Joseph Harter, large and fine, no competition, ... Diploma.
Grapes, Dr. Tompkins, fine specimen, no comp., 1st prem., ... Diploma.
Potatoes, Coral Messenger, 1st prem., ... 50
Sweet potatoes, Nathan Jones, fine specimen, no comp., ... Diploma.
Radishes, Hamilton White, large, no competition.
Quinces, Wm. L. Goodsferd, ... Diploma.

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AGRICULTURAL IMPLEMENTS.

Waggon, Henry Warner,.....Diploma.
Starbuck plow, W. H. Penrose,.....Diploma.
St. Clair " " .....Diploma.
Straw cutter, " .....Diploma.
Salmon's improved seed and grain separator, Cook & Beeson, Diploma.

The above articles being manufactured out of the county, cash premiums are not awarded, but the committee speak very highly of each article.

DOMESTIC MANUFACTURES.

Piece flannel, Wm. Jones,	$1 00
Quilt, Mrs. Betsey Manering, 1st premium,	1 00
" " Robt. Shidler, 2d "	50
" piece work, Mrs. Jas. Jewell, 1st prem.,	1 00
" " " Nathan Jones, 2d premium,	50
Hearth rug, Miss C. Dunning, 1st premium,	1 00
" Mrs. W. G. Beckwith, 2d prem.,	50
Muslin work, Mrs. C. H. Tytherleigh,	1 00
Rag carpet, Mis Charlotte Dunning,	1 00
Double coverlet, Mrs. J. E. Bonine,	1 00
Fancy boxes, Mrs. D. S. Jones,.....Diploma and	50
Knitting work, Miss Louisa Osborn,	50
Card Basket, Miss H. N. Beckwith,	50
Lamp mat, " "	50
Work pocket, Miss Derlin, fine, but not entered in time for examination.	
Brooms, Joseph Crane,	50
Brushes, Joseph Crane,.....Diploma.	

MISCELLANEOUS ARTICLES.

Penmanship, J. B. McIntosh,.....Diploma.	
Horse shoeing, Parker B. Holmes,	$1 00
Maple sugar, Dan'l Carlisle,	50
Apple pearer, Nathan Jones,.....Diploma.	
2 jars honey, Dr. Tompkins,.....Transactions.	
Flat irons, Henry Warner,.....Diploma.	

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POULTRY.

B. G. & E. Buel, black Cayuga ducks,.....Diploma.
" white Poland top-not ducks,.....Diploma.
Wm. L. Goodspeed, black Poland top-not chickens,.....Diploma.
Conrad Fry, Shanghai, 1st premium,..... $1 00
Geo. B. Turner, " 2d " 50

D. M. HOWELL, Sec'y.

The society then prodeeded to the election of the following officers for the coming year, to wit:

President—William Sears, La Grange.

V. Presidents—Archibald Jewell, Wayne; Marcus Peck, Jefferson; Geo. Redfield, Ontwa; Isaac Hull, Calvin; Stephen Jones, Penn; Samuel F. Anderson, La Grange; Henry Howzer, Pokagon; Ezekiel C. Smith, Howard; Daniel Blosh, Silver Creek; Milo Powell, Porter; Benj. Hathaway, Volinia; Heman Redfield, Mason; Henry Aldrich, Milton; John Goff, Marcellus; Ira Warren, Newberg.

Treasurer—J. K. Riller.

Secretary—E. B. Warner.

STATISTICS OF CASS COUNTY FOR THE YEAR 1854.

No. of acres of land taxable,.....	223,931
" " improved,.....	68,060
" of acres sowed with wheat,.....	19,988
" of acres of corn harvested previous year,.....	21,858
" of bushels of corn raised " "	546,438
" " of wheat " " "	220,752
" of acres of wheat harvested " "	16,407
" of bushels of all other kinds of grain,.....	303,437
" of bushels of potatoes raised,.....	96,988
" of tons of hay raised previous year,.....	15,012
" of pounds of wool "	71,741
" " pork, "	1,161,553
" " butter, "	185,510
" " cheese, "	21,790
" " sugar, "	47,704
" of horses one year old and over,.....	3,269
" of neat cattle, other than oxen and cows,.....	3,979

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No. of work oxen,	1,115
" of milch cows,	3,953
" of sheep,	24,462
" of swine over six months old,	14,663
" of runs of stone,	8
" of bbls flour made previous year,	7,360
Value of products the past year,	$20,780
No. of saw mills,	23
" grist mills,	3
Amount of capital invested in saw mills,	$40,500
Feet of lumber sawed previous year,	4,327,000
Value of goods imported for sale,	$212,700

Amount raised by the Society,	$116 73
Amount appropriated by the county, 1-10th mill tax,	271 00
	$387 73
Amount paid in premiums awarded,	198 50
Balance in Treasury,	$189 23
Number of inhabitants in Cass county, according to the census, was males,	6,429
Number of females,	5,973
Total,	12,402

There are about 12,000 or 13,000 acres of prairie land, and about 15,000 or 16,000 of swamp lands, in this county. The settlement of this county was first commenced about the year 1831.

In conclusion, we would say that although on account of the cold and unpleasant weather on the days of our county fair, there was not as much interest taken in it as was anticipated, but on the whole there was a marked improvement in the condition of the animals on exhibition, and also in the agricultural implements presented for inspection. We are therefore warranted in the belief that we are making some little progress in the important science of agriculture in this county.

Very respectfully yours,

E. B. WARNER,

Secretary.

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GENESEE COUNTY.

GRAND BLANC, GENESEE CO., MICH., Dec. 11th, 1854.

J. C. HOLMES, ESQ., *Sec'y Michigan State Agricultural Society:*

DEAR SIR—There is no falling off this year in the interest heretofore manifested in Genesee county in favor of improvement in agricultural pursuits. Within the year a considerable quantity of new land has been cleared; and the clearings of previous years have been much enhanced in value by open and under draining. Not only does this, in a manner, create additional land, by rendering fruitful tracts formerly considered worthless, but an excellent coat of manure is produced that will be found useful for almost any soil. The practical importance of a system of thorough draining is only beginning to be appreciated here, and is destined to add immensely to the productive capabilities of farms.

Due attention is also paid to the improvement of stock, and is manifest in the superiority to be observed in cattle, horses and sheep, first in the animals imported, and secondly in those raised in the county. The old and inferior breeds are gradually giving place to the best that can be procured which prove adapted to our wants and the climate. In this regard, expense seems to be but a secondary consideration with our farmers, in comparison with getting the most valuable blood.

Notwithstanding the drought of the past season, which has operated so injuriously upon some sections of the States, and from which our county has not been exempted, we have raised abundance of grain and other produce, for the wants of the inhabitants and stock, as well as for the large and increasing emigration which is coming in here, as well as spreading itself north and west of us. It is also to be borne in mind

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that if the nature of the season has cut short in many instances the quantity of the farmer's crops, they have no particular reason to complain of the quality; and the deficiency has been measurably compensated for, by remunerative prices.

Taking a general view of the results of the past year upon Genesee county, we find ample reason to be thankful to a gracious providence; added to which, the men seem willing to put their own shoulders to the wheel, and thus improve the blessings bestowed upon them.

Yours respectfully,

R. B. PERRY,

Corresponding Secretary, Genesee County.

FIFTH ANNUAL REPORT OF THE EXECUTIVE COMMITTEE OF THE GENESEE COUNTY AGRICULTURAL SOCIETY.

J. C. HOLMES, ESQ.:

SIR—In compliance with your request "to have embodied in the reports of the county Societies, a history of the county from its organization, till the present time, and also a descripion of soil, timber, &c.," we will introduce the treatment of the topics upon which our by-laws require us to report, with a short notice of the early settlement and progress of the county, from such meagre facts and records as are within our knowledge.

The first land taken up in this county, from the general government, was in 1824. In 1825, a few pioneers located in the southern part of the county, but for several years the whole amount of the purchases from government did not exceed 600 or 700 acres. Most of the earliest settlers in this county emigrated from Livingston, Monroe, and Genesee, in N. Y., and a few came from Vermont. They were just the men to develop a new territory, and the enterprise and energy which promoted their removal, continued to act in their new home in conjunction with perseverance and thrift, advancing step by step, until we find them to-day, wealthy and respected members of a populous community; and many of them distinguished and active members of this Society.

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Until the organization of the county in 1836, however, there was no very rapid increase in the number of its white inhabitants. The establishment of the first mail route and post office, in 1835, and the progress of a military road which the territorial government were cutting out, from Detroit to Saginaw, through the centre of this county, afforded some impetus to settlement; and upon the general government locating and opening the District Land Office in Flint, in 1836, a perfect rush for land took place, by which the office was literally besieged.

From that time forward, the increase of population and development of the resources of Genesee county have progressed with steady growth, and as much rapidity as is generally consistent with healthy and durable vitality. In order to afford some idea of the progress made, we have compiled the following comparative statement of her statistics in the years 1840, 1850, and 1854. The first is derived from the U. S. census; the second from De Bow's valuable Compendium of the Seventh Census, just published by order of Congress; and the last from the returns of the Supervisors, now lodged in the County Clerk's office:

	1840.	1850.	1854.
No. of inhabitants,	4,268	12,031	15,418
" horses and mules,	418	1,699	2,463
" neat cattle,	3,468	10,641	11,056
" sheep,	1,007	25,895	33,236
" swine,	6,540	6,299	6,600
Bushels of wheat harvested,	37,399	134,021	169,027
" corn "	17,675	128,326	119,831
" other kinds of grain harvested,	27,966	87,267	87,962
" potatoes "	41,442	52,117	59,467
Tons of hay,	1,941	16,964	19,383
Pounds of wool sheared,	1,302	73,804	91,930
" butter and cheese made,		326,021	331,702
" pork marketed,			230,682
No. of flouring mills,	3	7	11
Barrels of flour made,	1,050	24,427	31,756
No. of saw-mills,	10	5	31
Feet of lumber sawed,		5,200,000	13,435,000
Value " "		$38,725	$78,377
" of manufactures of all kinds,	$2,958	$194,176	$262,020
Capital invested in do.	$35,500	$112,285	$195,975

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The soil of the county varies considerable in different townships and sections. It is considered that the southern tier of towns has generally a sandy gravelly soil, the middle towns a clayey loam and sand—loam and clay predominating, while much of the northern, like the southern, part of the county is sandy gravelly.

The south part of the county is mostly oak openings, with some timbered openings and plains. The north half is entirely timbered land; some portions heavily timbered, but the greater part would be called medium. The prevailing wood is oak, maple, beech and bass, mixed with black walnut, butternut, hickory, and, indeed, almost everything—the whole being interspersed with some considerable patches of pine.

This society was organized in 1850, and its effect was almost immediately visible upon all within the scope of its objects. Working annually with increased success, its influence is continually extending and becoming better appreciated. For more particular information in relation to its proceedings, we would refer to its several annual reports.

With this cursory retrospect, in response to your request, and which may probably be sufficient to answer the purpose in view, we proceed to the consideration of the subject more immediately before us.

On the whole, the past has been a season of eminent prosperity to our farming community, for though they have suffered somewhat from the drought, the damage to crops from this cause, has been less in this than in most other sections of our State and many others; for, while the crops of grass, spring grain, and potatoes have been considerably diminished, especially in the light soils of the openings, that of wheat, our great staple, has been abundant; and in consequence of the high prices which most agricultural products have commanded, the farmer has received ample remuneration for his toil, and had abundant reason "to bless the Bounteous Giver."

The evidences and results of this prosperity are apparent on every hand, in various improvements—not only the erection of new and substantial buildings—the removal of stumps—the clearing of brush-grown headlands—the substitution of new fences for the old amalgamation of briers, bushes and rotten rails—but also in the introduction of superior breeds of stock and sheep, and improved implements of husbandry, at a liberal expense. The manifest improvement in stock and sheep which was a subject of general remark at our late fair, is a demonstration, not

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only of the farmer's prosperity, but also of his intelligence and faith in the progress of his art when based on scientific principles. The same prosperous state of affairs is further illustrated, and the same favorable inference sustained by the frequent observation of the most improved tools and implements for facilitating and perfecting the tillage of the fields, and the use of the best devised machines for saving labor. All these things indicate advance in the right direction, and suggest several reflections. First, the tendency of all real advances in civilization, to develop the unity of the State or community, and the mutual relations which exist between its several parts and the intimate dependence of one calling and pursuit upon another; for, while the farmer profits by the improved adaptation and more perfect construction of his tools and implements, this reacts to the benefit of the mechanic in the reduction of price at which the farmer can afford his products, or what perhaps is better yet, in the increased demand for, and more ample remuneration of his own labor; and again, the advantage which is so obviously seen to result from attention to improvements which have been introduced within a few years, should induce our farmers to keep their eyes open with careful, diligent scrutiny, in every direction, that no opportunity of profiting by such advantages, may escape them. This principle is well understood and carefully, systematically heeded by our large manufacturers at the east; and it is by this in a great measure, that they are enabled to rival successfully foreign competition, and at the same time afford labor a more liberal recompense than it received in other countries.

Here we cannot refrain from once more noticing a deficiency which has been a cause of chagrin at our last as well as all previous exhibitions, which we hope to see avoided in future—we allude to the meagerness in the mechanical department, especially of improved implements of husbandry. Now, we think that the same prudent foresight and scrutinizing alertness which we have just commended in our manufacturers, and recommended to our agriculturists, should induce the inventors, makers and venders of improved implements, to secure a full exhibition of such at all our fairs, with sufficient attendants to demonstrate their peculiar advantages. Such a course, we doubt not, would find ample recompense in the addition it would make to the advantages of other methods of advertising, while at the same time it would

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materially enhance the interest of our annual exhibitions. And let it not be thought that it may be unnecessary or unprofitable because such improved tools and implements may have been introduced into use to some or even considerable extent, for the continued and extensive advertising in the newspapers in such cases, shows that it is well understood; that though some and even many may have become enlightened, many more still remain in darkness and need, as in other cases, "line upon line and precept upon precept."

The same advantages which have so obviously resulted from attention to stock and tools, we doubt not will be ultimately sought and found in attention to the elements, differences, deficiencies and requirements of different soils, and their adaptation to different crops, the proper season and the best method of conducting their tillage, &c., &c.—in a word, to agricultural chemistry and scientific agriculture.

That agriculture is destined to profit as much at least by the teachings and revelations of the chemist, as it has from the aid of the mechanic, we think no chimerical prediction; nor do we doubt but that the time is rapidly advancing when the present apathy upon this subject, will be regarded with as much surprise and incredulity as we now bestow upon the stock, plow tillage, and sickle harvesting of some of the oldest nations of Europe. We shall not enlarge upon this important subject at the present time, further than to express our regret that the valuable instruction in this department at our University, should have been so soon interrupted by the untimely death of the late, accomplished, and devoted Prof. Fox; and since we cannot avail ourselves, further, of the advantages of his oral instructions, let us take as a substitute that embodiment of the result of years of study and attention devoted to this subject, which we find in his "Agricultural Text Book," a work which, while it is of peculiar value to us as having been prepared in our midst, with particular reference and adaptation to our wants, is unsurpassed by any other of the same extent for the vast amount of accurate information which it contains upon a great variety of important subjects, promoting to the farmer who will study it with care, as much advantage as he might derive from an improved mechanical aid, involving many times the expense. One peculiar advantage which recommends it to a large class who find but little time for reading is, that

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from its admirable arrangement, perspicuity and conciseness, the precise information sought upon any particular subject can be readily obtained.

It has been suggested by a discerning practical farmer, that there is some danger, lest under the stimulus of the present high price of wheat, the growing of this grain may be pushed to an unnatural extent, which in the end, shall prove disastrous to the farmer, and through him to the whole community—another illustration of the unity of the body, social as well as political, and the impossibility of one member suffering without involving others with it, and at the same time, showing the common interest all have in the promulgation of correct views upon all subjects. Whether this wise caution will be heeded in an age when a narrow selfishness is allowed to triumph over all things, even enlightened self-interest, is a matter of some doubt; but whether it be or not, one thing is certain, that the laws of cause and effect will not be set aside, whether they are ignorantly, heedlessly, or wilfully disregarded, and when all the fertile lands of the West may have become as sterile as the worn out fields of old Virginia, from the same improvement and unwise system of repeated cropping, with little or no return to the soil, perchance the lessons of experience may be attended to.

The commendable spirit of careful observation, wise discrimination and energetic action, to which we have alluded, is particularly requisite in the present condition of our horticulture. We are now stocking a new country with fruit trees, and it is a question of no trifling interest how we do it. Premising that the cultivation of fruit is a worthy object, it follows as a natural inference that it is worth doing well; and this implies many things, a few of which we can but glance at at present. Of the many varieties of fruit to be met with, it is of course desirable to cultivate the best, and what these are is to be determined by several considerations, as their qualities, the purposes for which they are wanted, their productiveness, adaptation to the climate and particular soils, their greater or less liability to failure and imperfection, for it is well known that a variety of established reputation and great value in most localities, may, in other sections, or in a different soil, or under different culture, prove inferior or worthless. Now it is desirable that these problems, with many others, such as the best time and method of transplanting, how best to guard against untimely frosts, the injury from insects both to the trees themselves and the fruit, &c., should be solved

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as speedily as possible; and to promote their solution should be a paramount object of the horticultural department of our annual exhibitions. To this end we should encourage the collection of the best specimens of the best varieties, to be accompanied with a statement of the character of the soil upon which they had been grown, and the aid (if any) which they have received in the form of manures, &c., with a comparison with other known varieties grown in the same soil and under the same circumstances, whenever there is a marked difference. Here a suggestion arises, that it would be profitable in this and other cases to encourage, by adequate premiums, investigations which establish important facts. Such a course, in addition to the value of the facts collected as a basis for subsequent inferences, would foster and encourage a spirit of accurate observation so indispensable for the full development of agriculture both as a science and an art.

There is one other subject to which we would call attention; and though it may appear trivial to some, it will not be so deemed by the thoughtful farmer who knows how much of his success depends upon attention to such things at the right time. The subject we refer to is the introduction of noxious weeds, for when it is recollected how much of the farmer's time and care are expended in eradicating these pests, and how large a proportion of those even in this newly settled country are of foreign origin, and how much the cultivation of some sections has been embarrassed by their excessive multiplication, he will be ready in this case to admit the application of Poor Richard's aphorism, that "an ounce of preventative is worth a pound of cure." The inconvenience and damage which our farmers have experienced from the introduction of chess, cockle, &c., among their wheat, should teach them to be on the alert against a still more troublesome pest, the "Pigeon Weed," which we are informed is making its appearance among us. During the past season we have met with a single plant of the "White Weed" or Daisy, which has proved so annoying in the meadows at the east; and observed a limited patch of the "Wild Teazle," which, from the luxuriance of its growth and its rejection by all kinds of stock, promises, if left alone a few years, to make itself as conspicuous as it now is in some parts of New York, where it contends with the "Canada Thistle" and "Milk Weed" in stifling the growth of all that is valuable. Others of the same class might be mentioned, but it is sufficient to remark that if

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such "aids to the farmer" are not desirable, it is much easier and wiser to prevent their dissemination, rather than attempt an interminable war of extermination after they have once established themselves and become widely scattered through the land.

The fourth annual meeting of the society was held at the Court House, in Flint, on the 11th of January, 1854, the President in the Chair.

The annual report of the executive committee, for 1853, was read by the Secretary, accepted and adopted.

The Treasurer presented his report for 1853, showing the following condition of the finances of the society:

Balance on hand from 1852,	$60 95	
Total receipts in 1853,	327 23	
		$388 18
Amount of premiums paid,	$160 25	
Other expenses of the society,	171 76	
		$332 01
Leaving balance on hand,		$56 17

The report was accepted and adopted.

Amendments to the constitution were adopted, consolidating the duties of the recording and corresponding secretaries in one office; and increasing the number of the executive committee from five to seven members. The society also adopted the following addition to their by-laws, to take effect from the next distribution of premiums, viz.:

"Any premiums awarded, and not demanded from the Treasurer within one year from the time of such awards being declared, shall be forfeited and revert to the Society."

The following officers were then elected for the year 1854—the Vice Presidents *viva voce*—all the others by ballot:

President—Benjamin Pierson.

Vice Presidents—(One in each township.)

Argentine, Abraham Middlesworth.
Atlas, E. G. Gale.
Clayton, S. B. Stedman.
Davison, Daniel Dayton.
Fenton, S. C. Sadler.

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Flint, Levi Walker.
Flushing, James Hosey.
Forest, John Crawford.
Gaines, James Van Vleet.
Genesee, D. H. Seeley.
Grand Blanc, C. D. W. Gibson.
Montrose, John Farquharson.
Mundy, A. C. Johnson.
Richfield, Alanson Munger.
Thetford, W. L. Van Tyle.
Vienna, William Bodine.

Secretary—F. H. Rankin.

Treasurer—E. H. Hazleton.

Executive Committee—Jonathan Dayton, E. G. Gale, A. E. Wilcox, D. N. Montague, J. L. Gage, Daniel Clarke, Grant Decker.

Auditors—Levi Walker, William Paterson.

In the last annual report of this Society, mention was made of a very generous donation of a number of Reports of the Patent Office, and other valuable Congressional Publications, being placed at the disposal of the Society, by Col. James L. Conger. These books were received in sufficient time to be allocated as premiums in the advertised list of the Society, prepared by the Executive Committee at its first meeting, on the 27th of March. Encouraged by the success which attended the enhancement of the previous year's premium list, the committee still further increased the number and value of the premiums, to a very considerable extent, in all the principal classes of competition.

The following is the list offered, with the rules for exhibition:

LIST OF PREMIUMS

To be awarded at the Fifth Annual Fair of the Genesee County Agricultural Society, to be held on Wednesday and Thursday, the 4th and 5th days of October, 1854.

FARMS.

1. Best cultivated farm, not less than forty acres, and not less than twenty-five acres cultivated, Patent Office Report and $5 00
2. Second best do., ... Patent Office Report and 4 00
3. Third best do., ... Patent Office Report and 3 00
4. Fourth best do., ... Patent Office Report and 2 00

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Viewing Committee on Farms.—Henry Schram, of Flint; N. H. Chittenden, of Genesee; I. C. Atherton, of Flint.

Competitors for the premiums on farms are required to notify the Secretary of their intention to offer their farms in competition, on or before the 1st day of June next.

The Viewing Committee are requested to visit the farms entered for competition, during the last week of June next.

CATTLE.

1. Best full blooded Short Horned Durham bull, 1 year old or over,		$5 00
2. Second best full blooded Short Horned Durham bull, 1 year old or over,		4 00
3. Third best full blooded Short Horned Durham bull, 1 year old or over,		3 00
4. Best full blooded Devon bull, 1 year old or over,		5 00
5. 2d best " " " " " "		4 00
6. 3d best " " " " " "		3 00
7. Best bull, 2 years old or over,	Patent Office Report and	3 00
8. 2d best bull, 2 years old or over,	Patent Office Report and	2 00
9. 3d best bull, 2 years old or over,	Patent Office Report and	1 00
10. Best yearling bull,	Patent Office Report and	3 00
11. 2d best yearling bull,	Patent Office Report and	2 00
12. 3d best yearling bull,	Patent Office Report and	1 00
13. Best bull calf,	Patent Office Report and	2 00
14. 2d best bull calf,	Patent Office Report and	1 50
15. 3d best bull calf,	Patent Office Report and	1 00
16. Best milch cow,	Patent Office Report and	3 00
17. 2d best milch cow,	Patent Office Report and	2 00
18. 3d best milch cow,	Patent Office Report and	1 00
19. Best yoke working oxen,		5 00
20. 2d best yoke working oxen,	Patent Office Report and	3 00
21. 3d best " " "	Patent Office Report and	2 00
22. Best five yoke of oxen from any one township, not in separate competition,		10 00
23. Best yoke of 4 year old steers,	Patent Office Report and	3 00
24. 2d best yoke of 4 year old steers,	Patent Office Report and	2 00

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25.	3d best yoke of 4 year old steers, Patent Office Report and	$1 00
26.	Best yoke of 3 year old steers,	3 00
27.	2d best yoke of 3 year old steers,	2 00
28.	3d best yoke of 3 year old steers,	1 00
29.	Best yoke of 2 year old steers,	2 00
30.	2d best yoke of 2 year old steers,	1 50
31.	3d best yoke of 2 year old steers,	1 00
32.	Best yoke yearling steers,	2 00
33.	2d best yoke yearling steers,	1 00
34.	3d best yoke yearling steers,	50
35.	Best 2 year old heifer,	2 00
36.	2d best 2 year old heifer,	1 00
37.	3d best 2 year old heifer,	50
38.	Best yearling heifer,	1 50
39.	2d best yearling heifer,	1 00
40.	3d best yearling heifer,	50
41.	Best heifer calf,	1 00
42.	2d best heifer calf,	50

HORSES.

1.	Best stallion, 4 years old or over,	$5 00
2.	2d best stallion, 4 years old or over,	3 00
3.	3d best stallion, 4 years old or over,	2 00
4.	Best stallion, 3 years old,	3 00
5.	2d best stallion, 3 years old,	2 00
6.	3d best stallion 3 years old,	1 00
7.	Best brood mare, with foal by her side, 4 years old or over, Patent Office Report and	3 00
8.	2d best brood mare, with foal by her side, 4 years old or over, Patent Office Report and	2 00
9.	3d best brood mare, with foal by her side, 4 years old or over, Patent Office Report and	1 00
10.	Best span of matched Horses, 4 years old or over, Patent Office Report and	5 00
11.	2d best span of matched horses, 4 years old or over, Patent Office Report and	3 00
12.	3d best span of matched horses, 4 years old or over, Patent Office Report and	2 00

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13.	Best gelding,	4 years old or over,				$2 50
14.	2d best gelding	4 years old or over,				2 00
15.	3d "	4 "	"			1 00
16.	Best gelding	3 "				2 00
17.	2d "	3 "				1 00
18.	Best mare	4 "	or over,			2 00
19.	2d "	4 "	"			1 00
20.	Best "	3 "				2 00
21.	2d "	3 "				1 00
22.	Best colt	2 "	gelding or stallion,			2 00
23.	2d "	2 "	"			1 00
24.	Best mare colt	2 "				2 00
25.	2d "	2 "				1 00
26.	Best yearling colt,					1 00
27.	2d "					50

Any span of horses entered for competition as matched horses, must resemble each other in size, form, color and action.

SHEEP.

1.	Best fine wool buck,	1 year old or over,	Patent Office Report and			$3 00
2.	2d best fine wool buck	1 year old or over,	Patent Office Report and			2 00
3.	3d best fine wool buck	1 year old or over,	Patent Office Report and			1 00
4.	Best pen of five ewes,					4 00
5.	2d "	"				3 00
6.	3d "	"				2 00
7.	Best "	five buck lambs,	Patent Office Report and			3 00
8.	2d "	" "	"	"		2 00
9.	3d "	" "	"	"		1 00
10.	Best "	" ewe lambs,		"	"	3 00
11.	2d "	" "		"	"	2 00
12.	3d "	" "		"	"	1 00
13.	Best Leicestershire buck and two ewes,					2 00
14.	" Southdown	"	"	Patent Office Report and		2 00

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15. 2d Southdown buck and two ewes, Patent Office Report and $1 00

SWINE.

1. Best boar, 1 year old or over,...Patent Office Report and $3 00
2. 2d " 1 " " ... " " 2 00
3. 3d " 1 " " ... " " 1 00
4. Best " 4 months old or over,..... 2 00
5. 2d " 4 " " 1 00
6. Best sow, and not less than five pigs, Patent Office Report and 3 00
7. 2d best sow, and not less than five pigs, Patent Office Report and 2 00
8. 3d best sow, and not less than five pigs, Patent Office Report and 1 00

POULTRY.

1. Best cock and hen,..... $1 00
2. 2d " " 75
3. 3d " " 50
4. Best lot of poultry, not less than five, owned by the exhibitor, ... 1 00
5. 2d best lot of poultry, not less than five, owned by the exhibitor, ... 75
6. 3d best lot of poultry, not less than five, owned by the exhibitor, ... 50

FARMING IMPLEMENTS, &C.

1. Best breaking-up plow for general purposes, Patent Office Report and..... $3 00
2. 2d best breaking-up plow for general purposes, Patent Office Report and..... 2 00
3. Best plow for single team, for general purposes, Patent Office Report and..... 2 00
4. 2d best plow for single team, for general purposes, Patent Office Report and..... 1 00
5. Best farm wagon,.....Patent Office Report and 3 00
6. 2d " ..... " " 2 00

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7.	3d best farm wagon,	Patent Office Report and	$1 00
8.	Best harrow,	" "	1 00
9.	" general cultivator,	" "	1 00
10.	" fanning mill,	" "	2 00
11.	" straw cutter,	" "	1 00
12.	" corn and cob crusher,	" "	2 00
13.	" horse cart for farm,		1 00
14.	" ox " "		1 00
15.	" horse rake,		1 00
16.	" ox yoke,		50
17.	Best grain cradle,		1 00
18.	Best six hand rakes,		50
19.	Best six hay forks,		50
20.	Best six manure forks,		50
21.	Best hay rigging for wagon,		50
22.	Best threshing machine,	Patent Office Report and	2 00
23.	Best corn sheller, hand power,		50
24.	Best and most collective assortment of Agricultural Implements manufactured in this county, under the supervision of the exhibitor,	Patent Office Report and	2 00
25.	Best horse power for general purposes,	Patent Office Report and	2 00

MISCELLANEOUS.

1.	Best buggy,	$2 00
2.	Best carriage harness,	1 00
3.	Best wagon harness for farm,	1 00
4.	" bureau,	1 00
5.	" table,	50
6.	" variety of cabinet ware,	1 00
7.	" window blinds,	1 00
8.	" window sash, 24 lights,	50
9.	" panel door,	50
10.	" notch clevis,	50
11.	" churn,	50
12.	" pork barrel,	50
13.	" flour barrel,	25
14.	" wash tub,	50

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15. Best half dozen pails, ... $0 50
16. " variety of stone ware, ... 50
17. " box of saleratus, not less than 100 pounds, ... 50
18. " two half thousand bunches shingles, ... 1 00
19. " thousand brick, ten to be exhibited, ... 50
20. " twelve corn brooms, ... 50
21. " bee hive, ... 50
22. " 10 lbs. honey, ... 50
23. " 5 lbs. maple sugar, with process of manufacturing and clarifying, ... 50
24. Best gallon of maple molasses, ... 50
25. " made coat, ... 50
26. " pair fine boots, ... 50
27. " pair coarse boots, ... 50
28. " pair buckskin mittens, ... 50
29. " " gloves, ... 50

HORSE SHOEING.

1. Span of horses best shod, ... $1 00

FLOUR.

1. Best barrel flour from least wheat, (with a full statement of the same,) $2 00
2. 2d best do, with statement, ... 1 00

BREAD.

1. Best two loaves Baker's bread, ... $0 75
2. 2d best " " 50
3. Best " milk or salt rising, ... 75
4. 2d best " " " 50
5. Best two loaves yeast rising, ... 75
6. 2d best " " 50
7. Best two loaves soda rising, ... 75
8. 2d best " " 50
9. Best sample corn bread, ... 75
10. 2d " " 50

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BUTTER AND CHEESE.

1.	Best 5 lbs. butter,	Patent Office Report and $1 00
2.	2d " "	" " 75
3.	3d " "	" " 50
4.	4th " "	Patent Office Report.
5.	Best cheese,	Patent Office Report and $1 00
6.	2d "	" " 75
7.	3d "	" " 50
8.	4th "	Patent Office Report.

DOMESTIC MANUFACTURES.

1.	Best woollen shawl,	$1 00
2.	2d best "	50
3.	Best pair woollen blankets,	1 00
4.	2d " "	50
5.	Best 10 yards flannel,	1 00
6.	2d " "	50
7.	Best 10 yards woollen cloth,	1 00
8.	2d best " "	50
9.	Best 10 yards woollen carpet,	1 00
10.	2d " "	50
11.	Best 10 yards rag carpet,	1 00
12.	2d " "	50
13.	Best 10 yards tow cloth,	1 00
14.	2d " "	50
15.	Best hearth rug,	50

HOSIERY.

1.	Best pair woollen knit stockings,	$0 50
2.	2d " "	25
3.	Best pair cotton knit stockings,	50
4.	2d best " "	25
5.	Best pair linen knit stockings,	50
6.	2d best " "	25
7.	Best pair woolen socks,	50
8.	2d best "	25
9.	Best pair cotton socks,	50
10.	2d best "	25

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11.	Best pair woolen knit mittens,	$0 50
12.	2d best " "	25
13.	Best pair woolen knit gloves,	50
14.	2d best " "	25
15.	Best pair silk knit mitts,	75
16.	2d best " "	50
17.	Best pair cotton knit gloves,	75
18.	2d best " "	50

ORNAMENTAL NEEDLE WORK.

1.	Best and greatest variety of worsted work,	$1 00
2.	2d best " "	50
3.	Best ornamental needle work,	50
4.	2d best " "	25
5.	Best ottoman cover,	50
6.	2d best "	25
7.	Best table cover,	50
8.	2d best "	25
9.	Best worsted worked port folio,	50
10.	2d best " "	25
11.	Best fancy chair work with needle,	50
12.	2d best " "	25
13.	Best worked collar,	50
14.	2d best "	25
15.	Best worked quilt,	1 00
16.	2d best "	50
17.	Best white quilt,	50
18.	2d best "	25
19.	Best lace cape,	50
20.	2d best "	25
21.	Best two lamp mats,	50
22.	2d best "	25
23.	Best silk bonnet,	50
24.	2d best "	25
25.	Best straw bonnet,	50
26.	2d best "	25
27.	Best straw hat,	25

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Discretionary premiums will be awarded on articles of merit not included in the above list.

FANCY WORK.

1.	Best specimen of ornamental shell work,	$1 00
2.	2d best " "	50
3.	Best specimen of wax flowers,	1 00
4.	2d best " "	75
5.	3d best " "	50
6.	Best and largest collection of artificial flowers,	1 00
7.	Best specimen of artificial flowers,	75
8.	2d best " "	50
9.	3d best " "	25
10.	Best oil painting,	1 00
11.	2d best "	75
12.	3d best "	50
13.	Best water color painting,	75
14.	2d best "	50
15.	3d best "	25
16.	Best specimen cattle drawing,	1 00
17.	2d best " "	50
18.	Best Daguerreotype,	1 00

Discretionary premiums will be awarded on manufactured articles of merit, not included in the above list.

FLOWERS.

1.	Greatest variety and quantity of flowers,	$0 50
2.	Best and greatest variety of Dahlias,	50
3.	Best ten dissimilar blooms "	50
4.	Best and greatest variety of roses,	50
5.	Best ten dissimilar blooms "	50
6.	Best and greatest variety of indigenous plants,	50
7.	Best collection of green house plants owned by one person,	50
8.	Best floral design,	50
9.	Best hand boquet,	50
10.	Best basket boquet with handle,	50
11.	Best grass boquet,	50

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FRUIT.

1. Best assortment and greatest variety of table apples correctly named,	$2 00
2. 2d best asssortment and greatest variety of table apples correctly named,	1 50
3. 3d best assortment and greatest variety of table apples correctly named,	1 00
4. 4th best assortment and greatest variety of table apples correctly named,	50
5. Best single variety of table apples, not less than six specimens,	50
6. Best assortment and greatest variety of winter apples, correctly named,	2 00
7. 2d best assortment, and greatest variety of winter apples, correctly named,	1 75
8. 3d best assortment, and greatest variety of winter apples, correctly named,	1 50
9. 4th best assortment, and greatest variety of winter apples, correctly named,	1 25
10. 5th best assortment, and greatest variety of winter apples, correctly named,	1 00
11. 6th best assortment, and greatest variety of winter apples, correctly named,	75
12. Best assortment, and greatest variety of pears, correctly named,	1 00
13. 2d best assortment, and greatest variety of pears, correctly named,	75
14. 3d best assortment, and greatest variety of pears, correctly named,	50
15. Best assortment, and greatest variety of peaches,	75
16. 2d best assortment, and greatest variety of peaches,	50
17. 3d best assortment, and greatest variety of peaches,	25
18. Best four varieties of plums, six specimens each,	50
19. Best collection of plums, six specimens each,	50
20. Best 12 plums, any choice variety,	50
21. Best and greatest number of good varieties nectarines and apricots, 6 specimens each,	50

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22.	Best 6 specimens of any good variety,	$0 50
23.	Best lot of Quinces, not less than 6 specimens,	1 00
24.	2d best lot of quinces, not less than 6 specimens,	75
25.	3d best lot of quinces, not less than 6 specimens,	50
26.	Best and most extensive collection of grapes,	1 00
27.	2d best and most extensive collection of grapes,	75
28.	3d best and most extensive collection of grapes,	50
29.	Best specimen of grapes,	1 00
30.	2d best specimen of grapes,	75
31.	3d best specimen of grapes,	50
32.	Best specimens of any variety of watermelons,	50

Discretionary premiums will be awarded for choice fruits not enumerated in the above list.

VEGETABLES.

1.	Best 5 heads celery,	$0 50
2.	2d best celery,	25
3.	Best three heads cauliflower,	50
4.	2d best three heads cauliflower,	25
5.	Best three heads brocoli,	50
6.	2d best three heads brocoli,	25
7.	Best 12 white table turnips,	50
8.	2d best 12 white table turnips,	25
9.	Best 12 beets,	50
10.	2d best 12 beets,	25
11.	Best 12 parsnips,	50
12.	2d best 12 parsnips,	25
13.	Best 12 onions,	50
14.	2d best 12 onions,	25
15.	Best 3 heads of cabbage,	50
16.	2d best 3 heads of cabbage,	25
17.	Best 12 tomatoes,	50
18.	2d best 12 tomatoes,	25
19.	Best peck beans, any variety,	25
20.	" bunch double parsley,	25
21.	" winter squash,	75
22.	2d best winter squash,	50

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23. 3d best winter squash, ... $0 25
24. Best and largest pumpkin, ... 25
25. " 12 ears of corn, ... 25
26. " peck table potatoes, ... 25
27. " specimen sweet potatoes, ... 50
28. 2d best specimen sweet potatoes, ... 25
29. Best and greatest variety of vegetables raised by exhibitor, 50

FIELD CROPS.

1. Best crop of Winter wheat, not less than one acre, Patent Office Report and $3 00
2. 2d best crop of Winter wheat, not less than one acre, Patent Office Report and 2 00
3. 3d best crop of Winter wheat, not less than one acre, Patent Office Report and 1 00
4. Best crop of Indian corn, not less than one acre, Patent Office Report and 3 00
5. 2d best crop of Indian corn, not less than one acre, Patent Office Report and 2 00
6. 3d best crop of Indian corn, not less than one acre, Patent Office Report and 1 00
7. Best crop of oats, not less than one acre, Patent Office Report and 2 00
8. 2d best crop of oats, not less than one ocre, Patent Office Report and 1 00
9. Best crop of barley, not less than one acre, Patent Office Report and 2 00
10. 2d best crop of barley, not less than one acre, Patent Office Report and 1 00
11. Best crop of potatoes, not less than half an acre, Patent Office Report and 2 00
12. 2d crop of potatoes, not less than half an acre, Patent Office Report and 1 00
13. best crop of rutabagas, not less than half an acre, Patent Office Report and 2 00
14. 2d crop of rutabagas, not less than half an acre, Patent Office Report and 1 00

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15. Best crop of broom corn, not less than half an acre, Patent Office Report and $2 00
16. 2d crop of broom corn, not less than half an acre, Patent Office Report and 1 00
17. Best crop of carrots, not less than one-fourth of an acre, Patent Office Report and 2 00
18. 2d crop of carrots, not less than one-fourth of an acre, Patent Office Report and 1 00
19. Best crop of mangel wurtzel, not less than one-fourth of an acre, Patent Office Report and 2 00
20. 2d crop of mangel wurtzel, not less than one-fourth of an acre, Patent Office Report and 1 00
21. Best crop of clover seed, not less than one acre, Patent Office Report and 3 00
22. 2d best crop of clover seed, not less than one acre, Patent Office Report and 2 00
23. 3d crop of clover seed, not less than one acre, Patent Office Report and 1 00
24. Best crop of beans, not less than one-fourth of an acre, Patent Office Report and 2 00
25. 2d crop of beans, not less than one-fourth of an acre, Patent Office Report and 1 00
26. Best crop of peas, not less than one acre, Patent Office Report and 2 00
27. 2d crop of peas, not less than one acre, Patent Office Report and 1 00
28. Best crop of flax, not less than one acre, Patent Office Report and 2 00
29. 2d crop of flax, not less than one acre, Patent Office Report and 1 00

Applications for premiums on field crops may be entered on the days of the fair. Competitors will be required to furnish, for the information of the Viewing Committee, full statements as to the manner of cultivation, together with satisfactory evidence of the amount of produce; said statements to be handed to the Secretary on or before the first day of December. The premiums will be awarded on the first Wednesday in December. All field crops must be weighed or measured.

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SAMPLES OF FIELD CROPS.

1.	Best	sample	of winter wheat,	not less	than one bushel,	$1 00
2.	2d	"	"	"	"	50
3.	Best	"	of spring wheat,	"	"	1 00
4.	2d	"	"	"	"	50
5.	Best	"	of corn,	"	"	50
6.	2d	"	"	"	"	25
7.	Best	"	of oats,	"	"	50
8.	2d	"	"	"	"	25
9.	Best	"	of peas,	"	"	50
10.	2d	"	"	"	"	25
11.	Best	"	of flax seed,	"	"	50
12.	2d	"	"	"	"	25
13.	Best	"	of barley,	"	"	50
14.	2d	"	"	"	"	25
15.	Best	"	of clover seed,	"	than half a bushel,	1 00
16.	2d	"	"	"	"	50
17.	Best	"	of timothy seed,	"	"	50
18.	2d	"	"	"	"	25

Discretionary premiums will be awarded on meritorious products of the soil not enumerated in the above list.

PLOWING MATCHES.

1.	Best	plowing match	with horses,		$3 00
2.	2d best	"	"		2 00
3.	3d	"	"	"	1 00
4.		"	"	with oxen,	3 00
5.	2d	"	"	"	2 00
6.	3d	"	"	"	1 00

P. S. The society have on hand a number of valuable Congressional publications, placed at their disposal by Hon. James L. Conger, also some copies of the Transactions of the Michigan State Agricultural Society, which the Executive Committee purpose distributing as discretionary premiums, in addition to those specified in the above list.

No premium will be awarded on any product of the soil that did not grow in this county.

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No premium will be awarded on any manufactured articles, not manufactured in this county.

No premium will be awarded on any manufactured articles which have drawn premiums at any previous exhibition of this society.

No animals or other products will be entitled to compete for premiums unless they have been first entered upon the books of the society, under the instructions of the Marshal; and all articles or animals entered for competition, after being viewed by the judges must remain upon the ground till the list of premiums is declared off. All animals taken on the show ground must be properly secured.

No person competing for premiums can act as judge in that class in which he is a competitor.

Article 2d of the by-laws provides that "no animals or other product shall be entitled to a premium, but such as actually belong to, and are *bona fide* the property of members whose subscription shall have been paid" at the time of exhibition.

The Secretary having been notified by the owners of the land leased to the Society for the purpose of its Fairs, that they required the Society to relinquish possession of same; a special meeting of the Executive Committee was called upon the 13th of May, when the action taken by the committee on the 10th of March, 1853, in relation to the appointment of a special committee for the purchase of a piece of land, was rescinded; and to meet the existing exigency, the President, Grant Decker, and Daniel Clarke, were appointed a special committee to ascertain where a piece of land suitable for the purposes of the Society could be procured, and on what terms purchased.

A subsequent meeting was held on the 27th, when the Executive Committee received the report of the committee above named, and rode out and viewed several lots which had been offered for sale. After considerable negotiation with other parties, the purchasing committee finally bought a piece of about four acres in extent, of Messrs. Fenton & Bishop, lying handsomely to the south west of the village—good land—and contiguous to water for the use of stock. The price of this land was $400, of which the Society paid $100 in hand. It has been conveyed by deed to Levi Walker and Grant Decker, in trust for the Genesee County Agricultural Society.

Your committee are of opinion that in this selection, a very judicious

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purchase has been made. The ground is at a convenient distance from the centre of the village, in a rapidly improving locality, and its close proximity to the Thread River is a matter of much importance, from the facility it affords for watering animals during the time of holding Fairs. The land was covered with brush and young trees, and under the care of the President, to whom was dedicated the charge of superintending the fencing and preparing of the grounds, a sufficient number of the latter were spared for use and ornament, so disposed as must render the enclosure a place of great beauty when a few years' growth shall have been added to the trees. Upon the whole, the committee feel induced to congratulate the Society warmly upon the possession of this piece of property, which—belonging to the county—will in course of time, and with the improvements which will be effected upon it, make a very handsome and agreeable place for public recreation.

Considerable effort was required to get the ground cleared off, fenced in, and the requisite buildings and appurtenances erected and fixed for the reception of stock and articles for exhibition at the fair in October. All, however, was accomplished in good season, and the superior advantages of the new grounds over those heretofore occupied, was manifest in the additional scope afforded for the display of animals, and arrangement of other articles presented.

This purchase has removed one embarassment under which our society has heretofore labored, and given it a permanency which it did not before possess; while the success of our last exhibition has demonstrated that perseverance and well directed energy are alone necessary in order to realize results which might appear Utopian if predicted at present.

In the last annual report, your committee referred to the inconvenience and disadvantage both to exhibitors and officers of the society, occasioned by the late period at which a large proportion of the competitors for premiums offered their articles for entry. With a view to remedy this evil, the committee adopted and published a resolution to the effect that all such entries should be made on or before the first day of the fair; the articles or stock, however, not being required to be brought upon the grounds before 9 o'clock A. M. of the second day. Although this regulation, from not being universally understood, may possibly have operated to the inconvenience of a few members, your committee believe it to have been, upon the whole,

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highly beneficial and generally satisfactory—mainly in the additional time it affords the Viewing Committees to examine the articles in their respective classes, before making their awards; while it also enables the officers of the society to know in season, and make suitable arrangements for the exhibition of all that shall be produced—which never could be known or prepared for under the old rule. Now that the regulation is fully understood, even the temporary and limited inconvenience which may have resulted from it this year, will not recur at future fairs.

The fifth annual fair was held on the 4th and 5th of October, upon the new fair ground. Notwithstanding the unfavorable nature of the past season for farming operations, owing to the unusual and long continued drought already referred to, we have it in our power to congratulate the society upon the continued increase in its prosperity, as evidenced by the record of its members, the quality and extent of its exhibitions, and the number of visitors in attendance. The member's tickets issued in 1853, amounted to 317; this year the number enrolled was 382. While some of our sister counties have had to complain of a decline of their agricultural fairs in 1854, that of Genesee county manifested a most gratifying improvement upon all previous years. The weather was very favorable, and the throng of spectators upon the ground was extraordinary.

The annual address was delivered by Hon. James L. Conger; a copy is herewith enclosed. It is an able, eloquent and practical discourse, which was listened to with close attention, and responded to by a unanimous vote of thanks, and one requesting a copy for publication.

The following are the reports and awards of the several viewing committees:

CATTLE.

Full-blooded short horned Durham bull, 1st premium to C. C. Pierson.
Full blooded Devon bull, 1st premium to A. E. & H. L. Wilcox.
Two years old bull, 1st premium to E. Van Slyke.
Yearling bulls, 1st premium to R. B. Perry, 2d to James Ingalls.
Bull calf, 1st premium to Chauncey Brown.
Milch cows, 1st premium to Dennis Wolverton, 2d to R. B. Perry, 3d to R. B. Perry.

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Working oxen, 1st premium to Albertus Crapser, 2d to R. A. Carman, 3d to Isaac Kelsey.

Four years old steers, 1st premium to Albertus Crapser.

Three years old steers, 1st premium to John Hill, 2d to Hiram Bristol.

Two years old steers, 1st premium to Garrett Zufelt, 2d to A. B. Pratt, 3d to A. B. Pratt.

Yearling steers, 1st premium to Dwight M. Pratt, 2d to Jonathan Dayton.

Two years old heifers, 1st premium to Wm. Eckley, 2d to John A. Palmer, 3d to George Walker.

Yearling heifers, 1st premium to P. A. Skinner, 2d to James Ingalls, 3d to Wm. Bendle.

Heifer calf, 1st premium to Benjamin Pierson.

Judges.—George Crocker, Phineas Thompson, D. H. Seeley.

HORSES.

Four years old stallions, 1st premium to Albertus Crapser, 2d to James Adams, 3d to Benjamin Boomer.

Three years old stallions, 1st premium to H. Atchinson, 2d to John Britton, 3d to Hiram Bristol.

Brood mares, 1st premium to Benjamin Boomer, 2d to James Adams, 3d to James Adams.

Matched horses, 1st premium to Russel Bishop, 2d to J. C. Dayton, 3d to James Adams.

Four years old geldings, 1st premium to James Adams, 2d to D. C. Cutterback.

Three years old geldings, 1st premium to Samuel Aplin, 2d to L. G. Bickford.

Two years old colts, 1st premium to A. Wolverton, 2d to Dr. Murray.

Two years old mare colts, 1st premium to A. Wolverton, 2d to L. G. Buckingham.

Yearling colts, 1st premium to John Hill, 2d to John Hiller.

Four years old mares, 1st premium to Samuel Aplin, 2d to Richard Hascall.

Three years old mares, 1st premium to Francis Davis, 2d to David Turrell.

Judges.—Isaac Schram, Garrett Zufelt, Reuben Wetherell.

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SHEEP.

Fine wool bucks, 1st premium to E. G. Gale, 2d to E. G. Gale.

Pens of five ewes, 1st premium to E. G. Gale, 2d to R. B. Perry, 3d to Jonathan Dayton.

Pens of five buck lambs, 1st premium to E. G. Gale, 2d to Charles Bates, 3d to R. B. Perry.

Pens of five ewe lambs, 1st premium to Charles Bates, 2d to E. G. Gale, 3d to R. B. Perry.

Discretionary premiums recommended to C. H. Rockwood, for a Spanish Merino full blooded buck, and to D. H. Seeley, for a Spanish buck.

Judges.—J. W. King, E. B. Dewey, Julius Stickney.

SWINE.

Four months' old boars, 1st premium to Talmon Frost, (on account of blood,) 2d to Chauncey Brown.

Sow with pigs, 1st premium to David Brown, 2d to Lewis Buckingham.

Three barrow hogs belonging to L. Beckwith are reported "Fine hogs—worthy of notice."

Judges.—J. W. Bregole, S. F. Lowe, Ira Chase.

POULTRY.

Cock and hen, 1st premium to D. G. Watson, 2d to Leonard Wesson.

Lot of poultry, 1st premium to Charles Bates, 2d to Henry Goodenow, 3d to Nathan Simons.

Judges.—R. B. Perry, R. P. Aitken, L. G. Buckingham.

FARMING IMPLEMENTS, &C.

Farm wagons, 1st premium to Gahan & Decker, 2d to Wm. Tanner, 3d to Thomas Aplin.

Ox yoke, premium to Wm. Tanner.

Hay rigging, premium to Benjamin Boomer.

Discretionary premiums recommended to Daniel McKercher, for a wagon jack, to H. L. Donelson, for hay rigging, and to D. C. Dean, for a paring machine.

Judges.—Albertus Crapser, G. W. Thayer, Edmund Perry, Jr.

MISCELLANEOUS.

Carriage harness, premium to Daniel Curtis.

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Wagon harness, premium to Daniel Curtis.

Panel door, premium to J. W. Armstrong.

Buckskin mittens, premium to David Mather.

" gloves, prem. to David Mather.

A case of watches, jewelry, &c., exhibited by Wm. Stevenson, "Recommended to favorable notice."

A carriage, exhibited by Thomas Aplin, "Recommended to favorable notice."

Double carriage harness, exhibited by Daniel Curtis, "Good Article."

Lot of bound books, exhibited by Thomas Symons, "Recommended to favorable notice."

"The committee on miscellaneous articles report that the number of articles of this description on exhibition is very limited, and the most of those exhibited are not embraced in the printed list of articles to which premiums are promised. Of all articles examined by us, we find competition in but two instances.

"We have not thought proper to recommend discretionary premiums, for the reason that the articles examined by us, which must have discretionary premiums, if any, are not in our opinion particularly meritorious."

Judges.—Levi Walker, Wm. Moore, Alfred Pond.

FLOUR.

Barrel of flour, first premium to E. S. Swain.

"Statement of owner of the above barrel of flour: he measured up 5 bushels of wheat, which weighed 5 b. 4 lbs.; he ground separate 250 lbs. of flour from above amount of wheat. The committee think the above a large yield and first quality of flour, and recommend the first premium."

Judges.—A. T. Crosman, John Jordan, Jr., Benjamin Boomer.

BREAD.

Milk rising bread, first premium to Mrs. J. L. Gage.

Corn Bread, first prem. R. B. Perry.

Judges.—Mrs. Wm. Thurber, Mrs. S. M. Green, Mrs. N. Watkins.

BUTTER AND CHEESE.

Butter, first prem. to Mrs. J. L. Gage; 2d to Mrs. L. G. Buckingham; 3d to Geo. Rapp.

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Your committee would report that there were but three lots of butter exhibited. In cheese there was more competition. The samples were very good and it was hard to discriminate first, second, and third, but came to the conclusion as per report.

Judges.—Warner Lake, Mrs. P. Atherton, Mrs. L. Buckingham.

DOMESTIC MANUFACTURES.

Woolen shawl, first premium to Mrs. Felt.

Woolen cloth, first premium to Mrs. Felt, 2d prem. to Mrs. Felt.

Rag Carpet, first prem. to Lewis Buckingham, 2d to Wm. Tanner.

Judges.—Edward Parsons, Wm. Tanner, John Hallack.

HOSIERY.

Woolen knit stockings, 1st premium to Miss Mary Gage, 2d to Mrs. A. C. Moore.

Cotton knit stockings, 1st prem. to Mrs. J. L. Gage.

Linen knit stockings, 1st prem to Miss Jane Gage.

Woolen knit mittens, 1st prem. to Miss Mary Hiller, 2d to Mrs. J. L. Gage.

Woolen knit gloves, 1st premium to Miss Mary Hiller, 2d to Mrs. J. L. Gage.

Silk knit mitts, 1st prem. to Miss Martha Drake, 2d to Miss Mary Gage

Cotton knit gloves, 1st prem. to Mrs. J. L. Gage.

Discretionary premiums recommended to Mrs. J. L. Gage for woolen stocking yarn; to Mrs. J. L. Gage for linen knit gloves; to Mrs. George Rapp for a skein of woolen yarn; and to a little boy for a pair of knit suspenders, (not entered.)

Judges.—Mrs. J. Dayton, Mrs. B. Parsons, Mrs. C. S. Thompson.

ORNAMENTAL NEEDLE WORK.

White quilt, 1st premium to Mrs. A. C. Moore.

Discretionary premiums recommended to Miss H. R. Johnson for an embroidered cape, "a beautiful thing not on the list of premiums, but well worthy of one;" to Miss H. R. Johnson, for an embroidered scarf, "best;" to Miss H. R. Johnson for an embroidered toilet cushion, "good;" to Mrs. Lathrop for an embroidered cape, "best;" to D. C. Cutterback for a coverlet, "well worthy of a premium;" to Wm. Tanner for a bed spread; to Miss Sophia Pierson for an embroidered scarf,

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"second best;" to Miss Sophia Pierson for worked embroidery, "good;" to Mrs. B. M. Fay for embroidered shoes; to Miss Hattie Pratt (a child 9 years old,) for a seed & bead bag.

Judges.—Wm. Stevenson, Mrs. Bump, Mrs. Van Vechten.

FANCY WORK.

Artificial flowers, 2d premium to Miss Sophia Pierson.

Oil paintings, 1st prem. to Miss Sophia Pierson for No. 30; also to Thomas Goulding for No. 312; also to Thomas Goulding for No. 313; 2d prem to G. A. Vansickle.

Cattle drawing, 1st premium to James Guile.

Discretionary premiums recommended to Miss Holgate for a basket paper flowers, "fine;" to G. A. Vansickle for 3 monochromatic drawings; to Mrs. Handy for a leather work stand, "good;" to Miss H. R. Johnson for a pine burr card basket; to Miss H. R. Johnson for a picture in black crayon, "very fine;" to Miss Agnes Swan for wax flowers, "good;" to Miss Caroline Joslyn for a vase of flowers, "good;" to Edward A. Fay for bead work; to E. S. Williams for a California picture, "very fine;" to Simeon Perry for frame leather work painting.

"Two Sketches in Gilt frames, well deserving of the first premium but not entered or numbered, E. F. Cook."

Judges.—R. J. S. Page, Miss Francis Pratt, Miss Adelaide Fenton.

[We publish the awards for Fancy Work as reported by the Viewing Committee, but as the printed list of premiums offered has not in some cases been observed in making the awards, and the premium for the best Oil Painting has been awarded to three different lots, we suppose the Executive Committee will have to exercise some discretion in confirming the report.]

FLOWERS.

Dahlias, premium to Mrs. R. Bishop, "no competition."

House plants, premium to Mrs. R. Bishop, "no competition."

Boquet, premium to Mrs. R. Bishop. Discretionary premiums recommended to Mrs. R. Bishop for a lot of Verbenas, "no competition;" and to Miss Jenny Williams for a boquet of flowers.

Judges.—Mrs. J. B. Walker, Mrs. R. P. Aitkin.

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FRUIT.

Assortment of table apples, 2d premium to B. P. Foster, 3d to Samuel Day.

Single variety of table apples, premium to Samuel Day.

Winter apples, 2d premium, Andrew Harrison, 5th to D. Preston, 6th to D. Preston.

Pears, 1st premium to G. S. Hopkins. "Only lot, but very good, and committee think entitled to first premium."

Peaches, 2d premium to Samuel Day.

Quinces, 1st premium to B. P. Foster, 2d to A. B. Pratt, 3d to Mrs. R. Pratt.

Grapes, 1st premium to Thomas Goulding.

Watermelons, premium to C. J. Rankin.

"Committee would remark that the collection of fruit was not large, but good as regards specimens named. There were three or four lots of peaches exhibited too late for premiums, that were very fine; indeed, one of which measured nine inches in circumference, and excellent for any time or place."

Judges.—C. S. Thompson, H. L. Wilcox, Daniel Clarke.

VEGETABLES.

Turnips, 1st premium to George Andrews.

Beets, 1st premium to Thomas Heather, 2d to Rev. J. M. Arnold.

Onions, 1st premium to William King, 2d to G. M. Curtis.

Cabbage, 1st premium to John Rice.

Beans, premium to B. P. Foster.

Winter Squashes, 1st premium to John Rice, 2d to Mrs. Porter Hazleton.

Pumpkin, premium to Albertus Crapser.

Corn, premium to H. L. Donelson.

Potatoes, premium to John Swan.

Discretionary premium recommended to Thomas Heather, for twelve carrots.

Judges.—Henry Parsell, A. C. Johnson, Gurdon Watrous.

SAMPLES OF FIELD CROPS.

Winter wheat, 1st premium to Wm. Tanner.

Oats, 1st premium to Wm. Tanner.

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"The committee appointed on samples of field crops, awarded the premium on one bushel of winter wheet, No. 257; and on one bushel of oats, No. 258; all that will come up to the requirements of the society. There are small quantities of wheat and beans, less than one bushel, and a small quantity of barley."

Judges.—Lewis Buckingham, John Hill, Peter Miller.

PLOWS AND PLOWING.

Plow for single team, 1st premium to Ferris & Raymond.

Plowing match with horses, 1st premium to R. B. Perry, 2d to Albertus Crapser.

"The committee found great difficulty to decide, taking into consideration the circumstances, and the place where the plowing was to be done."

Judges.—Charles Bates, Ovid Hemphill, J. W. King.

FARMS.

"The committee appointed to view farms would respectfully submit the following report:

Your committee visited the three farms entered for premiums, on the last of June, also about the 20th of October. We found the several farms under about the same system of cultivation, but found considerable difference in the crops growing upon the different farms. Your committee think, however, that much of the difference may be attributed to the severe winter, and our very dry summer, affecting the soil of the different farms with a different degree of severity. The soil of R. B. Perry's farm is a clay and gravelly loam; that of Jonathan Dayton is clay and clay loam; that of Albertus Crapser is a sand and clay loam.

We found growing upon R. B. Perry's farm, wheat, peas, barley, flax and peas mixed, and corn; we should think that not any of his crops were very superior except barley and grass. Grass would go two tons or over to the acre. Corn much injured by cut-worm. He had a pretty good crop of rutabagas growing where corn was missing, also had rye growing among his corn for fall feed, which we think a good practice. Mr. Perry is under-draining quite extensively, which your committee think worthy of special commendation, but his farm is not so free from dock and mullens as we think a well cultivated farm ought to be. His fences also are poor.

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We found upon the farm of Jonathan Dayton, wheat, peas, barley, oats and rye mixed, and corn. His crops were about the same as those of R. B. Perry. We found no foul stuff growing upon his farm, his fences were all good, and in good order—no bushes growing in fence corners, and the farm presenting a neat and workmanlike style.

Upon the farm of Albertus Crapser we found wheat, peas, oats, corn and grass. Wheat first-rate; peas also; oats number one; corn injured, same as that of the other two, although that that was standing looked well; pastures very fine. Says he seeds to clover every spring all winter wheat, and all spring crops that will admit of it, for the fall feed. His meadows about the same as the other two, his fences are very much out of repair, and the farm needs a good deal of slicking up to make the general appearance equal to what nature has done for the land. The stock upon the three farms is about the same. Were your committee, in awarding the first premium, to leave out of consideration everything but the largest crops, we should unhesitatingly award it to Mr. Crapser; but your committee are not of opinion that the crops are the result of superior cultivation, but think that the nature of the soil of his farm has had much to do with them this very dry season; we therefore shall award the first premium to Jonathan Dayton, his farm presenting the neatest and most workmanlike appearance, second premium to Albertus Crapser, third to R. B. Perry.

C. H. ROCKWOOD,
H. SCHRAM,
NELSON H. CHITTENDEN,
Committee.

Dated, FLINT, Nov. 29th, 1854."

FIELD CROPS.

Best crop of Indian corn, 1st premium to A. S. Donelson.
Best crop of barley, 1st premium to Gurdon Watrous.

MR. DONELSON'S STATEMENT.

"One acre of quail track corn; planted on muck land; ground plowed May 12th, and harrowed with a 30-tooth drag, the same way it plowed; planted May 18th; cultivated before hoeing, lengthways of the furrows; hoed it same time, which was the 14th of June; did not hill it much; the worms began to cut the corn the last of May, and worked until the

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20th of June, which lessened the crop full one-quarter. I husked and measured it in the ear in October, making, good measure, 80 bushels of ears, nearly all sound corn. Plowed from 6 to 8 inches deep.

ABEL S. DONELSON.

FLINT, Nov. 16, 1854."

MR. WATROUS' STATEMENT.

"One piece of land sowed after potatoes, 5 rods by 20 rods, cultivated without plowing, ... 100 rods.
4 pieces, 8 feet by 36 rods long, cultivated without plowing, after corn, ... 72 rods.
2 pieces, 8 feet by 18 rods long, cultivated without plowing, after corn, ... 18 rods.
1 piece, 3 rods by 7 rods, after corn, plowed and cultivated, .. 21 rods.

Total, ... 211 rods.
From the above land N. Main threshed, ... 72 bush.
Cleaned up scatterings, ... 4 bush.

Total, ... 76 bush.

1 acre 51-160: 57 133-311.

GURDON WATROUS.

Grand Blanc."

Judges.—C. H. Rockwood, Henry Schram, N. H. Chittenden.

These awards have been confirmed throughout by the Executive Committee, except in the case of the report on "Fancy Work," which received some modification to conform the awards to the advertised list of premiums.

In conclusion, your committee would shortly repeat the result of their observation—that the interest felt in agricultural pursuits continues to increase—that within the year a good deal of land has been cleared, and the clearings of former years much improved—that one of the means of improvement we are glad to see coming into practice is the draining of wet lands, both by open and under drains—marshes previously considered worthless, upon being thus improved affording a coat of manure suitable for almost any soil or land—that more attention is yearly bestowed upon the breeding of cattle, horses, sheep, &c., both as regards home raising and importing—that notwithstanding the drought,

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we have, under Providence, saved abundance of grain for our inhabitants and stock, as well as for the large emigration which is coming in, or passing through to settle around us—and finally, that although crops may in some instances be short, prices are remunerative.

All of which is respectfully submitted.

For the Executive Committee,

F. H. RANKIN,

Secretary.

FLINT, December 31, 1854.

ADDRESS

DELIVERED BEFORE THE GENESEE COUNTY AGRICULTURAL SOCIETY, AT ITS ANNUAL FAIR, ON THE FIFTH DAY OF OCTOBER, 1854.

BY HON. JAMES L. CONGER.

MR. PRESIDENT AND GENTLEMEN OF THE SOCIETY—LADIES AND GENTLEMEN:

Although the pressure of numerous other engagements demanding my attention, has prevented so satisfactory a preparation for the part which I am expected to perform, as I could have desired, yet still I am gratified with the opportunity of meeting you here upon this occasion.

And indeed had the occasion been any other than what it is, I should not, under present circumstances, have deemed it consistently possible for me to have enjoyed the honor of being among you; notwithstanding I acknowledge with pleasure, the deep debt of gratitude I owe to the citizens of your county for the manifestation of their kindness and confidence in times now past, and the consequent very great pleasure it will alway afford me, so far as in my power, to respond to any demand which they may think proper to make upon me.

But this is, in truth, no ordinary meeting, where matters of comparatively trifling importance are to be discussed, or where with noise and display our time is to be idly wasted. For we have come together now on business of importance, and for useful and practical purposes. And that in this view of the importance of the matters which now engage our attention, I am neither singular nor alone, there is abundant evidence around me.

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Far beyond any thing I had expected to witness to-day, I behold here an immense assemblage of intelligent men and women, who have convened to consult together—to mingle in a frendly and honorable contest for the prize of excellence—and mutually to impart and receive information in regard to matters which neither lose any thing in importance by the consideration that they deeply concern the prosperity and general welfare of civilized man, nor suffer in dignity because they are essential to the every day comfort and happiness of all of us.

The interest and earnestness which are thus evinced are characteristic of the enlightened intelligence which lends a willing and liberal support to the advancement of the best interests of community—and the contemplation of the prospect before us is full of encouragement for the cause. The farmers of Genesee have come up here to-day in their strength, and by thousands—and more encouraging still, their amiable wives and daughters, in numbers not a few, are assembled among them. The *people* of the county are here to attend to their own important business, as it is fitting and proper they should—and for myself, "I can say, of a truth, it is good for me to be here."

When to this "goodly array" of the *people* of the county, we add the very creditable exhibition of so many noble specimens of stock, and all the other products of the farm, as well as of the dairy, the orchard and the garden,—and including of course the products of mechanical skill—and last though not least, the contributions of the *women*, which here, as always, give evidence of their superior taste and refinement—who is there so indifferent or so dull as not to feel inspired with renewed determination still farther to advance and to excel?

Agriculture—the cultivation of the soil—*is the real basis of the civilization of man;* and it is by this standard alone, that is, by their progress in the science and practice of the cultivation of the earth—that the different degrees of advancement of the various nations of the world from barbarism towards refinement may be measured and ascertained; at least with greater accuracy and certainty than by any other or all criterions united.

This is the only possible source from which a sufficient amount of sustenance can be derived by which the people of a densely populated country can be sustained and fed.

Wherever population is multiplied to such an extent that they can

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no longer be supported by the spontaneous productions of the earth, or by fishing and hunting, like the roaming savages, or by the increase of their droves and herds, like the nomad barbarians, they are compelled by necessity to cultivate the soil, and to remain for that purpose in comparitively fixed habitations. And this stage being reached in the ascending scale, it is *then*, and not till then, that a sure foundation is laid for the subsequent gradual, but certain development of that higher intelligence, and those improved forms of social life, which give their possessors a title to be regarded as *civilized*.

Not only, then, do all subsequent improvements, as well social and mental as physical, depend, either directly or remotely, for their origin and existence, upon agriculture, but the continuance and very existence of society after it is thus established, and even the lives of all its members, depend from year to year upon the exertions and success of the farmers.

It is not surprising, therefore, to learn as we do from history, that from the earliest times, and among all those nations most distinguished for their wisdom and their foresight, the business of protecting and fostering the interests of agriculture has ever been considered as among the first and most important duties of the governing power. *Agriculture* itself was fostered, although it very generally happened, in accordance with the policy and maxims of those times—as indeed with those of despotism every where and of all times—that the *people* engaged in that important occupation were defrauded of their rights, and denied their legitimate position among their fellows.

Among the methods resorted to for the encouragement and promotion of the important interest referred to, may be mentioned a yearly ceremony in China, the observance of which has been handed down from remote antiquity, and is said to be annually exhibited in that Empire at the present day. On the occasion alluded to, "The Brother of the Sun and Moon"—as the Emperor of that self-styled "Celestial Empire" is called—is graciously pleased to descend, for this purpose, from his "Dragon throne," and among other forms and observances deemed appropriate to the occasion, goes through the ceremony of holding the plow with his imperial hands while a few furrows are turned over, by way of doing honor to the employment, and manifesting his appreciation of its importance. And although we, independent sover-

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eigns of this opposite side of the globe, might not deem this as affording very important encouragement to the cause, yet it must be allowed to be a very praiseworthy custom, and one that, in the state of society which there exists, is calculated to do much good.

When we reflect upon the universally and long acknowledged importance of agriculture, and the incalculable benefits which we now know from experience, are derived to that interest in a thousand ways, from agricultural and horticultural fairs, exhibitions and societies, we may well be surprised that until within the last few years no such aids appear ever to have been thought of, and no such societies were ever formed.

It is not yet fifty years since the first Horticultural Society was established in London—and this, so far as we are informed, was "the first institution of the kind in the world." But soon after that, similar associations were formed in France and in the States of Massachusetts and Pennsylvania; and the great advantages resulting from them being then demonstrated by experience, Farmers' clubs, and Horticultural and Agricultural Societies have continued to be organized in an increasing ratio from year to year, till now they are to be found about every where, particularly in our own country. In some places we have township societies—more generally county, and in most of the States, State Agricultural Societies; and in the early part of the year 1852, there was organized at the city of Washington, a "*United States Agricultural Society;*"—on which occasion I had the pleasure to participate in that good work, and trust that I may be permitted to add that I enjoyed moreover, the honor of being elected by that Society, the first Vice President for the State of Michigan.

All these institutions are important aids in the cause; but I believe there is no other so important, or calculated to confer so many benefits upon the farmer, as the county associations. But I need not urge to *you*, my friends, the benefits of any of these societies; for that is a matter too well understood to require any waste of words on the subject. You know that a single ray of light will, alone, scarcely produce, in general, any perceptible effect; but when many rays are united together in one common focus, their brightness and their effect every way are incomparably greater and more powerful. The united effect is directly in proportion to the number of rays that contribute to produce

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the result. So too with reference to knowledge derived from experience, as in the case of farming; that of a single individual is comparatively limited; and without the means of learning the additional experience of others, which is offorded by these societies, the father and the son, and their descendants after them, may continue on from generation to generation, to do as their father before them did, without making any considerable advance or improvement; but when the knowledge and experience of *all* are combined and disseminated, then *each individual adds to his own small stock, the knowledge and experience of the whole.*

And again, although *experience* must, after all, be the main dependence of the farmer, as it is the only sure foundation of every science; yet when a sufficient number of facts are thus acquired to establish certain leading truths and principles, the intelligent and educated mind will often be able from such premises, by a course of inductive reasoning, to go much farther than actual experience alone would carry him on the road of improvement. For this, and for other even still more important reasons, the farmer should be an *enlightened* and an *educated* man. And if I am asked for the reasons why the farmer, and especially the American farmer, should be an educated man—I answer, they are many and convincing; but for the sake of brevity, let these suffice:—

1st. Because he is a *farmer.*

2d. Because he is the *head of a family.*

3d. Because he is a *man* and a *citizen* of this Republic.

1st, then, because he *is* a *farmer.* And cannot an ignorant and unlearned man be a good farmer? Can he not learn to clear the land—to plow, to mow, to hoe, to gather and secure his crops, and do all the *labor* that his business requires, without possessing any of the learning derived from books, or being otherwise informed upon subjects in general? He may indeed learn by experience to perform these different kinds of labor. But this will by no means make him a *good farmer;* and even for this limited amount of knowledge he is indebted to education, to the teachings of others, and to the lessons of experience.

But there is a higher and more extended range of knowledge which it is both his privilege and his duty to embrace in the education of himself and his children; and that, too, even if he had no higher duty,

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and no loftier aim than merely to know how to draw from the earth the largest amount of subsistence to support the mere animal portion of our nature.

It is not enough that he should know how to labor, for a *good* farmer should know how to labor to *advantage*. He should know how to bestow his efforts in such a manner as to obtain the largest amount of produce and profits from a given amount of exertion and care. He should be able to decide what kind of soil is best adapted to the growth of the various grains and products which he wishes to cultivate—and when a particular kind of soil fails to yield a return commensurate with his exertions, he ought to be able to determine *what it is that is wanting*, and how to apply the *proper remedy*. He may have been trained to the cultivation of a particular kind of soil, and learned by experience to cultivate *that* soil to advantage. But suppose that, in obeying the impulse of this age of progress, he goes forth to find a new home, and to purchase or settle on another farm, and proposes to devote his attention to a particular branch of the farming business—as the raising of wheat, or corn, or hemp, or grass—how then can he know whether a particular soil, which is yet untried, will answer his purpose.

To this, I may be answered by some of the race of *stand-still farmers*, that the appearance of the land, the growth of the timber and other outward indications will be sufficient to direct his choice; and it is true that all such signs are good so far as they go; but the difficulty is, they do not go far enough to give any reliable assurance in the case supposed. By such indications we may indeed generally know whether the land is *rich* or *poor*, but we cannot, by such means alone, determine *what* a particular soil will produce well; for, as every man of experience and observation knows, a soil may be rich and produce abundantly of *some* kinds of crops, while, if you attempt to cultivate *other kinds* of crops on the same land, you will only lose your labor and get nothing. There is, also, sometimes found on a farm, a certain field or piece of land, which, to all appearance, is even richer than the rest of the farm; but which, without the addition of certain other materials, cannot be made to produce anything of value. And again, nothing is more common in some parts of the country than to hear loud complaints from the farmers, that their lands are *worn out*, they were once highly productive, but now they have become exhausted, and re-

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fuse any longer to yield an adequate return for the labor bestowed upon them.

A little more *learning* would teach such men that the fault is not with the *land*, but with *themselves*, and that the loss complained of, is owing wholly to their own *ignorance* and *bad management*. A little more knowledge would teach them, as all experience proves wherever the experiment has been faithfully and understandingly made, that *lands properly cultivated never wear out;* that even when crops are raised upon them continuously from year to year, for a hundred or a thousand years in succession, yet, if properly managed, and with proper rotations of crops, those lands will never become exhausted, will never diminish in richness, but on the contrary, can actually be made to increase in value, and in their powers of production, and that, too, in a great majority of cases, without the application of any manure.

But how is all this to be known? how is all this to be accomplished? Science answers and tells us how. And it is here, in these instances—(which are put only for the sake of example and the purposes of illustration)—as it is in thousands of other instances that might be named, that *learning—education*—the knowledge derived from books, and confirmed by experience, is found to be of great and practical value even to the mere cultivator of the soil.

How so? And what kind of learning is here referred to? I answer—*Geology* and *Chemistry*. And when I mention these terms start not with dismay at the high sounding words, nor be deterred from the attempt to accomplish the task, by visions of crucibles, and horror of technical dictionaries. You may not, indeed, find time to master all the intricacies and technicalities of these sciences; nor is it necessary, for the purposes referred to, that you should do so; but you *can* find time to learn the great and leading principles, and to comprehend the important truths they teach; and the practical application of those principles and truths will often enable the farmer to realize ten dollars for one from the same amount of labor, and save him from the sacrifice of years of toil, which he might otherwise waste by his ill directed efforts.

It is not my purpose, of course, to give you a lecture upon the subject of Geology or Chemistry; but a brief reference to a few of the truths which these sciences teach us, may serve to stimulate inquiry,

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and to show their practical importance to the farmer in the present connection.

The profoundly ignorant man, when he looks abroad upon the material things that surround him and beholds the surface of the earth, the rock, the grass, the trees, the animals and his fellow men, imagines in his stupidity, that all these are so many distinct and essentially different substances made up of different materials, and without any common bond of relationship among them.

Geology, although a recent, is one of the most noble, and one of the most ennobling of the sciences, and at the same time one of the most useful. Not only is it of the highest importance in leading to the discovery of the rich minerals that are buried in the earth, a discovery of the utmost importance and value, not only to the farmer, but also to every class of community; not only does it tend to expand, to enlarge and liberalize the mind, by leading us as it were, into the very bowels of the earth, and teaching us there to read the history of the creation of the world we inhabit, written by the finger of the Almighty himself, in unmistakable characters, on imperishable tablets of stone. But it also shows us in connection with Chemistry, that all the material bodies of which the earth is composed, however modified in form, varied in appearance, and apparently dissimilar in their properties, do yet, in truth, all stand in mutual relationship to each other; and that in fact *they are all compounded of a few comparatively simple materials* or elements, and that these few elements, of which the whole body of the earth is composed, do, when acted on by the rays of the sun, and by light, heat, moisture and the chemical powers of other bodies with which they come in contact, furnish the materials of which, for the most part, the grass, the shrubs, the trees, the grains and all the endless variety of the products of the earth in every region of the globe, are built up, formed, *grow;* and further still, that in the higher development of the work of creation, these same productions of the earth when wrought upon by the appointed agents furnish in their turn the material elements of which are built up and compounded, not only the bodies of *men*, but also the bodies of all animals and birds and reptiles, and fishes, and of everything that hath life on the earth, in the air, and in the water. "All are but parts of one stupendous whole," and man may, with literal truth exclaim to the earth, "thou art my mother, and

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to the worm, thou art my sister, and my brother." One common mother, from her abundant storehouse, furnishes the materials for all alike; and one common Father, by his infinite creative wisdom, moulds and fashions each according to his will. And in this view of the subject at least, the worm is as nobly born as the proudest monarch that sits upon a throne.

And now for the application; for I doubt not some of you are ready to ask, what has all this to do with the business of *farming?* And how is a mere cultivator of the soil to derive any practical benefit from this kind of knowledge? To this the answer is plain and easy. Since men and animals are composed of certain materials, it is necessary, in order to supply the waste that is constantly going on in every part of their bodies, and that they may continue to grow and to live, that they should have a seasonable supply of such substances as are capable of affording the same kinds of materials as those of which they are thus deprived; and as the various products of the earth furnish the only available source from whence this supply can be obtained, either directly or through the medium of the flesh of other animals, there is evidently an absolute necessity that the ground to be cultivated should be capable of furnishing the elements of which the product is formed, or that enable it to grow.

Now, although all soils are for the most part mainly composed of the same elements, yet, in different localities, those elements are often present in different proportions, or exist in different combinations, and in some places also, some of these may be found *in excess*, and in others may be almost if not entirely *wanting*, and a similar variety of composition is found to obtain among the grains and other products of the earth also. Hence, it frequently happens that where one kind of grain will be produced abundantly, another kind of crop will be a partial or total failure. In all such cases, without some knowledge of Chemistry, derived either from experience or from books, the misfortune would be without remedy; but with such knowledge, it is easy to know what kind of crop will prove most profitable, or what other element it is necessary to add to the soil in order to make it produce any kind of crop that may be desired.

A very limited amount of knowledge will be found sufficient to enable every farmer to determine these questions for himself. Any ele-

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mentary treaties on chemistry and some good Agricultural Journal will easily furnish all the instruction necessary to enable him to analyze both the soil and its products, and to learn the names and the properties of the substances that enter into the composition of these, and of all other bodies.

And shall I be told that any farmer is too poor to incur this expense —or that he has *no time to read?* Let all such remember that one hour of well directed effort will be more profitable than weeks of the most strenuous exertions in a wrong direction. And if he think he cannot otherwise find time, let him keep his book and his paper in some convenient place where he can readily get hold of them; and whenever he comes into the house, employ his leisure moments in perusing them; and when the labors of the day are over, and he comes in at night to enjoy the pleasure of a reunion with the family, let him read then, or let some other member of the family read, and read aloud, so that all may be equally informed and benefitted; and he will soon find that what was at first a task, will become a pleasure; and what at first seemed dull and aimless, will become interesting and instructive.

But perhaps he is too much fatigued after his exertions, and therefore "*does not feel like reading.*" If this be the excuse for ignorance, I can only say, that no prudent man will thus exhaust himself. He has no right to do so. He gains nothing by it; but on the contrary is sure to be the loser. If he gain an hour or two one day, he is certain to lose much more the next. And if he persists in drawing such draughts on his constitution in early life, he is sure to have them to pay with compound interest in his old age.

Having acquired in this way, a sufficient amount of the kind of knowledge referred to, the possessor will then be able to answer for himself, and in a satisfactory manner, the important questions before stated, together with a thousand others of equal interest.

He will then understand why it is, that by improper management, a farm is *worn out;* because, while one kind of crop is exhausting the soil of the elements peculiarly necessary to the growth and maturity of *that* crop, the same land is, in other respects, not impoverished at all, or often actually becoming richer in the materials for some other crop. He will see that *there is always a certain correspondence between the principal elements of the grain or other products of the land, and the*

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elements of the land that produces. Take, for example, the grain of the wheat, the greater portion of which consists of a certain composition of lime. Now no one would be so stupid as to attempt to draw *blood from a tree*, simply because every body knows that a tree contains no blood; and it is equally absurd to attempt the production of wheat, and to hope to draw lime for its support and growth out of a soil that contains no lime. And so on, of every other product. One requires more of one kind of material for its growth, and another of another kind. By properly understanding this, by a due rotation of crops, and by occasionally supplying, by means of proper manures, such elements as may by chance, or otherwise happen to become exhausted, the same lands will continue to be productive for an indefinite number of years.

By the same kind of knowledge the farmer may learn, also, how to render productive that apparently rich spot on his farm which at present is worthless. He says it is "*sour*," and he can do nothing with it as it is. But if he remember what he is supposed to have learned, that vegetable substances, while undergoing decomposition or rotting, give out or generate carbonic acid gas, which is an *acid* or "*sour*," and which being heavier than air, remains at the surface and saturates the soil, and also that *alkalies* and *acids* have a strong affinity for each other; and that when brought together, a chemical combination and change takes place to such an extent, that both are neutralized and altered in their character and properties, so far as regards their effects upon other substances, he sees at once both the *difficulty* and the *remedy*. The difficulty is the presence of too much carbonic acid gas, an acid, a "sour;" the remedy is, the application of an alkali, such as soda or potash or lime.

Upon a knowledge of chemistry, too, whether derived from the lessons of experience or learned from the books, depends entirely the ability of the farmer to select the proper manure for his land.

If he knows in what elements of fertility the land is deficient, and also knows what kind of manure will most abundantly furnish the elements to supply that deficiency, why then, his course is straight forward and easy: and he is certain to be rewarded for his pains. But if he does not know these things, he, in this respect, knows nothing to advantage about the business of farming; and after having incurred a heavy expenditure in time and labor, and money, he may find out too late,

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that what he had hoped would prove a good manure is in fact, for the soil upon which it is put, no manure at all, or positively injurious.

And here, with regard to manure in general, I beg leave to remark, that although some, and perhaps all of them to a certain extent, may answer the purpose, which many persons who apply them erroneously suppose them designed exclusively to accomplish, to wit:—that of furnishing the ground certain elements which are either wholly wanting, or are present in quantities too small to answer the purposes of culture —that in fact the far greater benefit experienced from most of them, is derived from their power by virtue of their chemical affinities, to break up, separate and decompose the proximate elements of the soil with which they are mingled, in such a manner that those elements which go to contribute to the growth and bulk of the plant, can be made available for that purpose; in other words, they mainly contribute to prepare the food on which the plants, by its millions of mouths placed in its fibrous roots, feeds and grows.

And to this conclusion I am led by the consideration of a great variety of facts, and especially by the nature and constitution of all the most popular and efficient manures that are used in the world, *marl, burnt oyster shells, bones,* of men and animals, *lime, guano,* and *plaster of Paris*—what are all these? They are all of them either *alkalies,* or a combination of alkalies with *acids.* Lime is an alkali—bones consist almost entirely of phosphate of lime, that is, a chemical combination of phosphoric acid and lime—the greater portion of guano (which is the dung of sea-fowls,) is composed of the same elements; plaster of Paris is the sulphate of lime, and marl and oyster shells are also essentially lime.

I have before remarked that alkalies and acids always possess an affinity for each other; and I may also add that they each possess an affinity for almost every substance with which they may be brought in contact, that is, attract and are attracted by them, or with those elements of other substances for which they themselves possess a sufficient power of attraction to draw them off from the elements with which they were before combined. Hence it is easy to comprehend how the beneficial efforts alluded to may be accomplished by these manures.

Hence, also, it is, we account for the fact that barren sandy plains, which before would not even produce white beans, or any other vegeta-

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tion worthy of the name, have, nevertheless, when manured with lime or plaster of Paris, been made to produce fine crops of clover, and finally by such means been brought to be highly productive and profitable farms. Within my own remembrance, some of the finest farms in the State of New York have been redeemed from such barren plains, by means like these.

But this decomposition of the soil is not alone effected by the chemical action of manures; for it is constantly everywhere taking place at the surface of the earth, by the agencies of light, heat, moisture, the sun and the air. And this is one of the principal reasons why, in the absence of a better system of cropping, it is found beneficial to permit some lands to lie *fallow* in alternate seasons, when the same kinds of grain is raised upon it many times in succession. The decomposing process has thus time to go on and prepare a new supply of materials, which, with the addition of those other elements that the soil is doubtless at the same time gathering from the atmosphere and the gases that are floating in it, are sufficient for the production of the new crop. And for these same reasons mainly, to wit.: that this process of decomposition and of gathering together a new supply of materials that may serve as food for the plants, may go on more rapidly and effectually; that *plowing* or otherwise loosening and moving the soil, is so profitable and indispensable an operation in farming; not forgetting, of course, that other advantages resulting from the same operation—that of thus affording the roots of the plants an easier and a wider range over which to extend themselves and gather sustenence.

These suggestions bring us immediately to a consideration of the question whether *deep* or *shallow plowing* is to be deemed most proper and profitable, a question about which opinions have differed, and still differ widely, and about which it has happened, or usually does, that both extremes are wrong. There is no answer that can be given to this question, however true that answer may be, with reference to a certain kind of soil, and under particular circumstances, but would be false and erroneous if applied to a different soil, and under different circumstances. If, for instance, your land be sufficiently fertile to produce a satisfactorily good crop, by plowing to a moderate depth, and you have no apprehension either of *drought* or of *wet*, why, then, a moderate depth of furrow is all you want, say from six to eight inches per-

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haps on a general average. But if, from the nature or location of your land, or from any other cause, you fear any injury from its being either too wet or too dry, a deeper furrow, say from ten to fourteen inches, would be safer and more profitable. And for this, the reasons in both cases are plain and simple. If *too dry* on the surface, the roots can more easily penetrate to the moisture; and if *too wet*, the surplus water will settle at the bottom of the furrow, while the plant will grow and thrive nearer the top. And again, if the fertility of the surface has become exhausted, and the subsoil is capable of furnishing the necessary elements for the renewal of that fertility, then *very deep plowing*, or any other method of throwing up the earth from any reasonable depth that may be necessary to accomplish the object, will be profitable. It was this mode of reasoning guided by science, and put into practical operation, that enabled Professor Mapes of New Jersey, a few years since, by plowing from 16 to 24 inches or more in depth, to convert an apparently worthless and worn out piece of land, into one of the most productive and profitable farms of its size, in the State.

But I have already, perhaps, dwelt too long on this branch of my subject. And if by these few crude suggestions, thrown out almost at random, I have succeeded in showing the practical importance of this kind of knowledge to the farmer, and of so awakening attention and stimulating inquiry, as to lead ultimately to its acquisition, my object is so far accomplished.

I need not detain you to listen to any remarks of mine concerning the details of your various farming operations, or to give you lessons of economy to guide in the direction of your business in general; for even if I were capable of doing so to advantage, it is not necessary.

Every man knows, or ought to know, that if he would succeed in farming or any other occupation, he must attend to his business *himself;* and be careful, prudent and industrious; not indeed working beyond his powers of endurance, and thus making himself sick or prematurely old, nor worshiping the bushel of wheat, or the flock of sheep, or the "almighty dollar" in any other form, to such an extent as to deprive himself or his family of a due proportion of rational and social enjoyment and of the time and means of education.

He who would be independent and free, must *keep out of debt* and *live within his income*, and the man who runs in debt, at the store or

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elsewhere, and so pledges his crops before they are gathered, must soon learn by experience that the threshing of wheat or the husking of corn, or digging potatoes, to pay those old debts, is the poorest and most unsatisfactory kind of business that he ever engaged in. This "*paying for dead horses*," though sometimes unavoidable, is never a pleasant occupation. *Keep out of debt;* that is the *rule*, necessity must make the *exceptions*.

Whatever you do, do it *well;* ten acres of land well and thoroughly cultivated, will yield more, both in products and profits, than a hundred acres slovenly gone over.

And with regard to stock, it requires but a small capacity to understand that a *good* horse, or good ox, or hog or sheep, or any other *good* animal is worth much more, either to keep or to sell, and yet costs no more, and frequently not so much for the feeding, as a *poor* one, and, therefore, that in all such cases, the highest priced animal, if worth the price, is, in the end, the cheapest.

By careful attention in rearing and feeding, and by crossing the breeds in such a manner as to combine in *one*, many of the best points and most desirable qualities in *all*, a most wonderful change for the better has been brought about in the last century, in every kind of our domestic animals; to such an extent, indeed, that in many instances, the original breeds have become extinct.

But who will regret this, since their places are supplied by others much better adapted to our purposes. Who, for instance, would give up our present improved breeds of hogs, and go back to the original English breed—those long-legged, slab-sided, raw-boned, slouch-eared, big-headed, and long pike-snouted animals, that like "Pharaoh's lean kine," devoured all before them, and still remained poor.

And now, if you ask me what breeds of animals it is best for you to buy, my reply is—attend the agricultural fairs and examine for yourselves; converse with your neighbors who understand such matters; obtain all the information you can from agricultural publications; and then *buy the best of every kind that you can get;* and when you meet with any that are better than those you have on hand, buy those better ones, if you can, and get rid of the others. That is my notion of economy in such things.

2dly, the farmer should be an educated man, *because he is the head*

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of a family. As the head of the household, as a husband and a father, and the master and guardian to those who are under him, his duties and responsibilities are many and important. And how shall he know, in what manner properly to fulfill those duties, and discharge those responsibilities without being himself enlightened and informed? How can the blind safely lead the blind in the way they should go? How can the parent, who knows not the way himself, be able so to guide the efforts and the aspirations of the children whom God has committed to his charge, as to fit them worthily to perform their parts as men and women in maturer years? If we would know how the ignorant and uneducated perform, or rather, how they *fail* to perform their duties, we have but to look abroad over the world, and the answer is painfully apparent. Wherever ignorance reigns among the masses—(the farmers and laborers)—the women are miserable slaves, and the children are often sold into bondage, or even put to death with impunity by their unnatural parents, while the husband and father is too often but a heartless tyrant and a beast. And humiliating as the confession may be to our pride, it is nevertheless true, that unenlightened man too often shows in his conduct towards his mate and his offspring, that he is even far beneath the beast of the field and the forest, in his obedience to the kindly instincts of nature.

And what is it that makes the difference in these respects? It is the difference in the amount of education and knowledge. What is it but intelligence and education diffused among the people, that has redeemed our own mothers, and wives, and sisters, from the servile and degraded position that woman still occupies in so many other lands, and which, not long since, she occupied even in the land of our own forefathers. What is it but this, I repeat, that has elevated women among us to the influential and commanding position she so deservedly and worthily maintains.

And again, if we look abroad even in our own land, to ascertain who they are that fill our jails and our prisons, and stand before the tribunals of justice to answer for their violations of the rights of others, and of the laws of their country, and who they are that crowd our poor houses, and those dens of iniquity with which our citizens are cursed, and who contribute the great majority of those denizens of filthy holes, and tenants of gutters, and all the miserable race of loathsome outcasts

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that seem forsaken alike by God and man, we shall find, in ninety-nine cases out of a hundred, that they are the ignorant and uneducated who have *not* been *brought up*, but have *come up*, without a monitor to guide, direct, and enlighten them.

Ignorance may not be a *crime*, unless when we reject the means of education and information within our power; but it is always a great *misfortune*, and it almost as certainly leads to degradation and misery as knowledge leads to virtue, respectability and happiness; and the man, in any condition of life, who, having the means within his reach, neglects to inform himself, and contribute all his power to the instruction and education of those around him, is guilty of a high offence against society and morality.

Although all men are more or less liable to yield to temptation, yet knowledge presents the image of vice so distinctly in its own true character, that the intelligent mind is apt to shrink from the contemplation with loathing and horror; and often, where brutalized ignorance would rush forward without hesitation, the other will be effectually restrained by a feeling of respect and a fear of shame, in plunging, at least into the lower depths of vice and infamy, when otherwise even the fear of offending Heaven might not prove sufficient to deter.

This general theme is a highly important and interesting one; but necessity warns me to forbear—my business is now more directly with the beneficial effects of education to the farmer and his family. It is in the domestic circle of the farmer, and indeed of all others, where virtue and intelligence should shed forth their brightest rays, and exercise their most beneficial influence. It is here that the farmer finds his appropriate place of rest, and his legitimate kingdom; and if he rules that kingdom intelligently, in kindness and in love, he will seldom be disappointed in his expectations of happiness there. Indeed, where else shall he look for happiness and rest on earth, if he find it not in the bosom of his family? It is around the domestic hearth, where the good parents presided, that in after years cluster all those holier recollections which sanctify in memory the days of our childhood. It is there, and in early life, that for the most part, our future characters for good or for evil are found. And although I do not forget or undervalue the important part which devolves on the *mother*, nor the reciprocal obligations that rest on the other members of the family, yet I affirm

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with confidence, that upon the *father*, as head of the establishment, in a special manner, and above all others, rests the responsibility of the result.

So powerful on us is the influence of the teaching and example of those to whom we are accustomed to look up, that in this case, although there may be occasional exceptions, still I do not hesitate to say, show me a *bad wife* and I will show you a *bad husband;* show me a profligate or worthless *child* and I will show you a father who has ignorantly or wilfully neglected his duty; show me a man who is miserable in his domestic relations, and as a general rule, I will show you a wretch who *deserves* to be so.

But I need not pursue the subject farther; for, happily, among us, at least, there is little occasion for it. And yet it is said that some men foolishly reserve all their smiles for the public abroad, and their frowns and complaints and ill-nature for their true friends at home. If such men there be, they can only be those who are ignorant, unwise or mean-spirited, and "verily they have their reward;" for however they may succeed in deceiving the public, no man ever yet succeeded in the end in deceiving his wife and his children. These see him in his most unguarded moment, and know him too well to misjudge him; and whatever may be their conduct or their words, their *hearts* will prompt them to yield him such measure of their love and reverence, as such, only *as his conduct deserves*—more than this he can neither *force* nor *buy*.

And it is also sometimes said that even yet there may be occasionally found a brute in human form, who, in defiance of the public odium that always rests upon such baseness, can not only abuse and maltreat his children, but with dastardly meanness of a triple dye, dares to inflict blows upon the person of the partner of his bosom. I rejoice that few miscreants so vile can be found in our land. But if such a one should be found, I can only say, that for him there is an end to *talking*. He must be already so far lost to every sense of manly feeling, so low, so vile, and so degraded, even in his own estimation, that words can exercise no influence over him, though an angel speak them. Of all the creatures that walk or *creep* upon "God's footstool," there is none so mean, so cowardly and so detestable as the miscalled man, who would take advantage of his position and his superior strength to abuse and

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ill-treat the weak and the defenceless who are entrusted to his protection; and whenever I hear of a creature of *that* kind, I freely confess to the weakness of a peculiar itching in the toe of my boot; and notwithstanding my habitual reverence for "law and order," I experience great difficulty in withdrawing my mind from continually dwelling on "tar and feathers."

But I come now to the *third reason* assigned why the farmer should be an intelligent and educated man, to wit: *Because he is a* MAN *and a* CITIZEN *of the republic.*

In earlier times—as now in most other countries than our own—the doctrine very generally prevailed, and was carried out in practice, that Kings and priests ruled and governed the world by "Divine right;" and lying oracles and cheating miracles were adroitly made to confirm that monstrous claim. But not venturing to rely upon such spiritual protection, these classes often permitted, as a matter of policy and necessity, the soldiery, and sometimes only the leaders and renowned warriors, to occupy a position in the social scale only inferior to their own; while the mass of the people—the farmers and the laboring men—were placed at an almost immeasurable distance below their thus divinely appointed masters. To these "privileged orders" pertained alone the acknowledged right to acquire a more general education, as well as to fill all the offices of state and religion, and to practice all "the learned professions." To "the lower classes," these graciously handed down so much, and only so much, of knowledge, as was deemed sufficient to qualify them for the proper performance of the labor assigned to them in their several vocations.

As these "higher orders," however, understood full well that both the *right* and the *power* was really with the masses, who would be certain to make that power available in the successful assertion of that right, so soon as sufficiently informed, it was natural that they should strive, with all the energy and desperation imparted by a love of power and the necessity for self-preservation, to keep those masses of the people in continued and profound *ignorance*; and upon the success of their efforts in this respect, they mainly relied, after all, for the continuance of their dominion. That they succeeded too generally and too long, the history of the world attests. The wonder is, that they *have* so long succeeded: but while, and where, they have, or do, or may succeed

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in this, it is no wonder that the people are their *slaves*. Tyrants may rule over the ignorant and the servile, they may securely rivet the fetters of slavery where the land is shrouded by the sombre clouds of ignorance, but their deeds are deeds of *darkness*, and they tremble at the approach of the light of knowledge. Wherever that light arises on the mental horizon, it disperses the dark clouds of ignorance, even as the sun in the natural heavens disperses the darkness of the natural world; and then it is that the hypocritical pretensions of usurpers and the hidden villainies of tyrants are exposed to the eager and indignant gaze of down-trodden millions, who, wondering that they have been dupes and slaves so long, throw off the incubus that oppressed them, with a facility that astonishes nobody but themselves, and rising up in their native majesty, they step boldly on that more elevated platform, where all are men alike.

But while the state of things alluded to continued, the farmer, of course, was a mere delver and digger of the soil; with no higher aim than to gratify his own animal wants—to eat and to drink, and contribute to the greatness of the master he served, and to transmit to his children the heritage of *serfdom* that had come down to himself; and at the same time scarcely knowing or realizing that he had either a *country* or a *God*.

This is no high wrought picture of the fancy—but the *reality* of almost the entire of the *ancient*, and of the greater portion of the *modern world*.

But a change has come over the scene. By the gradual development of knowledge, the progress of intelligence and education and the onward march of mind, aided by a fortunate series of events, have been able to strip from these lordly and divine pretenders the stolen mantle of Heaven, in which they have so long arrayed themselves, to do the work of their master, the Devil; and to pierce through the misty disguise in which they had, for so many ages, succeeded in veiling the truth. And *here*, at least, man meets his fellow man an equal and a brother. The "Divine right" of kings and priests is repudiated by us, and their unfounded pretensions we laugh to scorn; the divine rights of *man*, which *have* a Heavenly origin, are acknowledged in their stead; and the only titles to superiority which we admit, are those of superior *virtue, intelligence and merit*.

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Here sovereignty resides with the *people*—and the officers of the government, in all its departments, can exercise only a limited and delegated power in trust; for they are all, from the highest to the lowest, but the *servants* and the *agents* of the people.

Farmers! do you realize the difference between *your* position and that of the farmers of other days and other lands? *They* in the management of the affairs of State were *nothing—you*, in this respect, are, if you will be, *everything.*

The State is emphatically YOURS, *and* YOU ARE EMPHATICALLY THE STATE. To you, in an especial manner, has been committed the sacred trust of upholding the rights of man, and of defending, maintaining, and transmitting to those who may come after you, the rich heritage of freedom that has descended to us. And do you not see in all this another and a good and sufficient reason, why the American farmer, at least, should be an intelligent and an educated man?

How can you know how to defend your rights, if you have not learned what those rights are? How can you wisely direct, by your influence and your votes, the measures of public policy, and the conduct of your political agents, if you remain uninformed of the principles upon which this republican government is based, and the measures that are best calculated to promote the prosperity and welfare of the country and yourselves?

Will you leave such important matters to the exclusive care of mere heartless politicians and seekers for office? If you do, you will soon cease to be *freemen*, and will deserve to be *slaves.*

Among politicians, even of long standing, it is true that there *may* be found honest and honorable men, who, in despite of the seductions of place and power, and the fiery ordeal of temptation through which they are obliged to pass, may still be deemed worthy of the proud appellation of *patriots* and *statesmen:* but I am sorry to say that the number of such is comparatively so few that they constitute only the *exceptions*, for the *general rule* is far otherwise. There would seem to be something in the very atmosphere of politics which exercises an overpowering and controlling sway on the conduct and motives of a majority of those who venture to remain too long within its influence; and which renders them for the most part apparently oblivious of all those nobler principles

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and holier aspirations by which they may have been guided and impelled at the commencement of their career.

With such men, *patriotism* itself becomes merely "an empty sound and tinkling cymbal," to gull and amuse the people with—their devotion to *principles*, has one constant reference to those seven cardinal principles—the "five loaves and the two fishes"—their love of *country* is swallowed up in love of *party;* and even their so much vaunted devotion to party extends in truth no farther than they can contrive to make party organization subservient to their interests—and even the most reliable patriots are none the less honest and useful for being well watched by the people.

All this may be possibly owing to the weakness inherent in man, by reason of which a majority appear unable—or more properly speaking, *unwilling*—to resist temptation beyond a certain point; but whatever may be the *cause*, the *result* is practically the same, and fully confirms the truth of the assertion, that *eternal vigilance on the part of the people is the price and condition of Freedom.* To glory in the character of an American citizen, and to *pray* for the perpetuity of our free institutions, and for the extension to others of the rights which we ourselves enjoy, is all very well; but alone it is not enough—and in the language of another, which I quote with all due reverence, "I say unto you all, *watch*," and approve or condemn the conduct of your public servants, each one for himself, as judgment and conscience may dictate. And in conclusion of this branch of my subject, I have only to add—if you think proper to do so, entrust the keeping of your dinner to your *dogs*; give over the tender lamb for safe keeping to the *wolf;* and have confidence, if you can, in the tears of the crocodile—but never be guilty of the greater absurdity and folly of entrusting the preservation of your rights and liberties to *trading politicians* and *seekers for office.*

I have already intimated the important and commanding position which the farmers of this county occupy in the social and political scale, and without meaning to flatter, I say, with a perfect conviction of the truth of the statement, that the power, and the influence, and the interest of the farmers of America, when legitimately exercised and properly understood, are not only greater than those of any other class of community, but are incomparably greater than those of *all* other classes combined.

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Strike from existence all the learned professions, and with them even all the mechanism and mechanics of the world, so that you do but leave remaining the cultivators of the soil, and civilized society will still continue to exist, and will readily find means for its own more perfect reconstruction and re-organization. But strike from existence the farmer and the farming interest, and civilized society would be annihilated in a day. All the learned professions, as well as the manufacturers, the merchants and mechanics, and every other class, are maintained, supported and fed, either directly or indirectly, by the farmers of the land, and without this support they would soon be driven either to starvation, or to raising their own corn.

I do not mean by this to depreciate the value of any class in community, for all classes are the natural growth of our social system—all, to a certain extent, necessary and useful in their way, and doubtless contribute to the general good. But I would that the *farmers*, and all other classes, should learn more correctly to value and appreciate both themselves and each other. I would that the farmer should begin to shake off more effectually that undue deference and veneration for the learned classes, which is still too often found clinging to him as the unworthy remnant of former times and different circumstances. I would have him inform himself, (as he *can*, if he *will*,) and then more generally to think and to reason for himself, and to act according to his own convictions, without regard to the dictation of parties or politicians, or of Lawyers, Doctors, or Priests. In short, I would have him more distinctly to know and to feel, that he is a *man*, and a *sovereign citizen* of this free Republic.

Nor is the amount of knowledge here hinted at, nearly so difficult to be acquired as many imagine. All that is necessary in general, with regard to other professions and callings, is, that the farmer should be so far informed as to be able to discriminate for himself between falsehood and truth, the pretended and the real, the humbug and the valuable, the impostor and the pious. He should for instance, be capable of understanding his own rights, and of judging for himself whether it is really necessary and expedient in any particular case, to appeal to the laws of his country for the protection of those rights—and without relying too implicitly upon the advice of a man whose very position and avocation (if he be dishonest) is a standing temptation to entangle his client

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in the intricate meshes of the Law, and not permit him to escape either too soon or too easily. And yet I believe that the legal professions of the day, can furnish its full proportion of honest and honorable men.

So, too, he may easily learn to comprehend so much of the laws of his being, and the leading doctrinal truths applicable to health and disease, as to determine, in case of derangement of the system, whether medical aid be required or not; and if needed at all, to procure such remedies, or obtain such aid as seems most likely to afford relief; whether he find it *within* or *without* the "*regular profession;*" for it is not every man who assumes the title of *Doctor*, or writes M. D. after his name, that is worthy to be entrusted with the life and the health of his fellow-men. And many a man who goes forth to levy contributions in this capacity, upon society, is not worthy to be entrusted with the doctoring of a *sheep;* notwithstanding he may appear "fully armed and equipped, as the law directs," with his pukes and his purges, his blisters, his lancets and his pill-bags; and although he may ostenatiously exhibit his "Diploma," duly signed by the renowned professors of some renowned "college of medicine," which authorizes him to kill or to cure "*secundum artem*," as ability, stupidity, chance or interest may decide.

And in regard to matters of theology and religion, which concern our spiritual and future welfare, it is peculiarly the privilege and the duty of the farmer, as it is of every other man in community, to have *an opinion of his own*—and for this very obvious and cogent reason, that *every man is responsible for himself*, and not one for another—and no one will be allowed to evade the consequences of his conduct, or to shirk the responsibility by tamely pinning his faith on the sleeve of his neighbor.

The truth is, my friends, that the world has already been humbugged much too long by the overshadowing pretensions of the "privileged orders" of self-styled "learned classes;" who, with a kindness and modesty peculiarly their own, are so ready to relieve the *people* from the trouble of thinking for themselves, and to do the thinking *for* them—as if, by the ordinances of Heaven, there had been established a *monopoly of intellect* in favor of particular classes of men.

Much progress has already been made in this respect, in the right direction, but still there remains much more yet to be accomplished. With *you*, the farmers of the land, rests the responsibility of complet-

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ing the good work. See to it, that you perform your duty faithfully to yourselves.

Remember that *the Intelligence of the people is the palladium of our freedom*—that virtue and knowledge are the strong pillars which may forever support and uphold the glorious fabric of our political institutions; and therefore, sustain and defend, encourage and extend our system of common schools, and all the means of education and useful information. Cease to be awed by mere *authority*, or silence of arrogant *assumption*. Shake off the prejudices that bind you to absurdities, and be able to give to every man an intelligent reason for "*the faith that is in you*." Be not deluded by *names*, or blinded by the brilliancy of sophistical reasoning, so as to lose sight of the *substance*, the *truth* and *reality*. And in *all* things which concern either your *temporal* or your *spiritual* welfare, learn to *think for yourselves*.

Thus shall you best perform your duties, and promote the real interests of yourselves and your fellow men. And if the "*giants of the earth*" should, in consequence, be diminished somewhat from their swollen and unnatural proportions—which, like shadowy forms in the clouds, are *magnified by distance and diminish as we approach them*—the elevation of the *masses of the people*, more nearly to their legitimate level, may well be regarded as at least an ample equivalent.

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GRAND TRAVERSE.

LANSING, January, 1855.

J. C. HOLMES—In answer to your inquiries respecting the adaptation of Grand Traverse to agricultural purposes, allow me to refer you to the following article, prepared originally for, and just published in the *State Journal*.

Respectfully yours,

JOHN S. DIXON.

DESCRIPTION OF THE COUNTRY AROUND GRAND TRAVERSE BAY, MICHIGAN.

1. Grand Traverse Bay, is an arm of Lake Michigan, extending into the Lower Peninsula, directly south about forty miles. The Bay is a broad sheet of water from six to nine hundred feet deep, and nine to fifteen miles wide. At the south end a Peninsula, from one to nearly three miles wide, and twenty-two miles long, runs into the Bay, dividing it into two arms, averaging nearly six miles wide each.

2. The land on each side of the Peninsula, and on each side of the Bay, is everywhere rolling, almost everywhere hard bottom, and the greatest defect is the scarcity of hay marshes. There are here and there springs; and wells have to be sunk from ten to sixty feet. The water is very fresh and pure; and in the Bay, a dollar might be seen at a great depth, the water being the clearest we ever saw; and the beach of the Bay everywhere sand and gravel, thrown up by the waves.

3. The soil is somewhat variant. Along the beach of the Bay, there are, here and there, flats, generally of small extent, composed of nearly pure sand; but as the land rises back from the Bay, there is more clay

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and loam, mixed with sand and gravel; and in some places it rises very rapidly by successive steep banks, to the height of thirty or forty feet, with undulations on the top. The soil is so full of lime, that in digging a well where it is moist, one's hands become bleached as with lime mortar; and limestones, many of them covered with lime in powder, are found almost everywhere, and cobblestones sufficient for building wells and cellars. Clay beds crop out occasionally at the sides of hills and steep banks, but are of small extent, and there springs appear. The surface soil being loose and porous, and the subsoil composed of clay, gravel, lime and sand, the deeper the more imbedded with lime and gravel, so as to form a hard bed, all the rain that falls is absorbed at once, and retained; and where this subsoil lies not too deep, drouth produces but little effect on crops while growing, though seed may not germinate during the dry season, in the latter part of July and August. Hence, also, muddy roads are unknown; and plowing may be done immediately after the heaviest rains; nor are there any ravines produced by the heaviest showers. At the close of the dry season of four weeks during last year, the crops on the most sandy soil, indicated a lack of moisture slightly, while the earth was found moist at the bottom of potato hills elsewhere.

4. The Bay is seldom quiet during twenty four hours at a time, and is frequently lashed into fury by the winds, covering the beach with sand and gravel. The atmosphere is consequently always moist and wholesome, while there is no ostensible cause of disease on the land; and for health this region may be confidently compared with the most healthy in the United States. During a number of days, in July and August, the heat was great, and no rain for four weeks; and yet there was not a single case of sickness worthy of notice, in a population of about five hundred. Later, the dysentery invaded a few families, for the first time, and carried off two children; and there were two cases of inflammation of the brain; but these are diseases well known in the healthiest parts of the country, and the former returns at intervals of about twenty years.

5. It is a well established philosophical fact, that water cools first on the surface and then sinks, while the warmer water rises; and consequently ice never forms till the whole body of water has been cooled to thirty-two degrees (the freezing point.) Now, from this fact, the

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Philosopher will at once deduce the climate of this region. Traverse Bay is from one to nine hundred feet deep, and the water never cools to thirty-two degrees till the middle of February, and in Lake Michigan on the West, never; and so long as the water in these contiguous reservoirs is warmer than the air, the former must obviously warm the latter. It is accordingly well known, that in England, on the east side of the Atlantic, seven or eight degrees farther north than Traverse Bay, the climate, as it regards cold in winter, is about equal to that of Washington City; and so it is on the east side of the Pacific in Oregon. Hence, it is evident that the seasons on the east side near Lake Michigan must be uniform, being regulated by the deep water of that Lake and of the Bay. Around Traverse Bay, the frost seldom kills vegetation till in November, and seldom occurs in spring later than the first of May. In November, as soon as it gets cold enough to freeze, the vapors arising from the lake and bay, fall in snow and cover the ground, before the frost has penetrated it at all; and accumulates during several months till it is about two feet deep, sometimes deeper; and remains till April; and when it goes off, cattle find enough to eat in the woods. This season working oxen fed on timothy pasture, till the 12th of November, when the ground began to be covered with snow; and since then till now, (December 10th,) it has been snowing more or less almost every day, the snow being now about six inches deep, with large drifts, in cleared land, along fences. But the ground is not frozen at all under the snow, even in bare fields, except a little where the wind had laid it bare; and the ice on a hazy marsh covered with stagnant water, is so thin and fragile that oxen readily walk through it, say forty rods to a hay stack. In spring, however, the waters of the Lake and Bay require time to be warmed by the sun; and summer vegetation does not start till about the middle or last of May. Plowing may be commenced in the 1st part of April, and planting from the 10th to the 20th of May. This region is much more sunny between the middle of March and December, than southern Michigan; and every vegetable physiologist, will at once state, that the influence of this on vegetation, must be very great, and accordingly, spring crops grow with such rapidity that corn is fit to be cut by the 1st of September. From December to March, as above, the atmosphere is hazy, cloudy and frosty, though the thermometer never sinks so low as in the south of Michigan, by

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ten or twelve degrees, (eight or ten degrees below zero being the lowest yet known,) and a winter thaw is unknown here. Hence we never have mud in winter, and but little at any season.

6. With the very defective cultivation hitherto used here, the yield of crops per aere, is as follows: Potatoes, the best and largest in the world, without rot or spot in the centre, from 150 to 300 bushels; Oats, 25 to 60; Corn, 25 to 50; Wheat, (spring) the largest yet raised, 27 bushels. Wheat raised here, is much more plump than in southern Michigan; and there is no instance of its being smothered or injured by snow; because the snow never thaws and alternately freezes, into a hard crust or ice, so as to exclude the air from the wheat, as in other places. We confidently predict that this will become the most prolific wheat region in the west; rust and insects are wholly unknown here.

7. All experience goes to prove that this will be a great fruit country. The Indian apple and peach trees, though few in number, bear well every year. And as for wild blackberries and raspberries, both as to size and flavor, there is absolutely no end. They serve all the inhabitants, and millions of pigeons for several months.

8. We have little game, except pigeons, rabbits and a few, foxes, on the Peninsula. A few deer are found on the main land; but no wolves and few bears. There are no poisonous reptiles or insects larger than hornets.

9. The population around the Bay will range about as follows: Old Mission, 300 Whites, 80 Indians (going off). At other settlements around the Bay, 300 Whites, 800 to 1,000 Indians.

10. Water powers and the number of mill stones they will severally propel: are Elk Rapids, (across the east arm of the Bay from the Old Mission) 16; Traverse City, 7; White Water, 2 or 3; Pine River, probably, is superior to any of the above. Hitherto, a little summer and winter wheat has been raised by five or six farmers; but more has been sown last fall in anticipation of a grist mill promised by several persons; and when this is once built, wheat will in a great measure, supercede potatoes, corn and oats.

11. To get to Grand Traverse from the west, enquire of Hannah, Lay & Co., Chicago, whose lumber vessels make a trip to Traverse City at the head of the west arm of the Bay, nearly every week. To come from the east, take any of the upper lake steamers to Mackinac, and

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thence to the Old Mission by the small propeller Stockman, leaving Mackinac every Monday morning. But by far the better way, is to charter one of the large propellers or steamers that sail the upper lakes, and come without trans-shipment, from Buffalo, Detroit, or any intermediate port. Wells D. Walbridge of Buffalo, or Oliver Newberry of Detroit, will carry movers to this region when the passage and freight money amounts to a hundred dollars or more. One of us paid Walbridge $5 passage; $2 cabin; $6 for an ox or cow; $5 for a wagon, 50 cents for a barrel bulk from Detroit.

12. We are now offered $1 50 per cord, for wood on the beach. Steam and sail vessels will take it at that price, and the latter carry it to Chicago in any quanties. Now, as the hauling on the Peninsula need in no case exceed two miles, and generally not one, it is manifest that farmers able to chop cord wood, can clear up their farms and make a living at the same time. This opportunity is, we think, in many cases, superior to that afforded by the old Indian clearings, which have nearly all been bought by the Whites; and when the large steamers once come into this Bay for wood, we can send our agricultural products to market, as cheap as from any port on Lake Michigan, for we have nearly 20,000 acres of heavy timbered land on the Peninsula alone.

13. There are but few sheep in this region, it having been found difficult to protect them against the Indian dogs. Hogs have been fat in the woods all summer, and find food enough now in the unfrozen ground; but they are not plenty and sell high. Cows bring from $30 to $50; oxen from $100 to $150 per yoke; Indian ponies $50 each.

14. Most decidedly the best time to move hither is in the spring, and the earlier the better, as provisions are not kept on hand for sale the year round; and feed for animals commands almost any price. Oats in the bundle sold last fall for $16 per ton, tame hay the same, and now there is none for sale. But horned animals have often been wintered solely on browse, and come out well where chopping was constantly carried on, and will again this winter. Indian ponies do all the chopping for themselves. Groceries sell as follows: Sugar 8; Indian sugar 6; coffee 14; tea 62½; saleratus 10 cents per lb.

15. The land on this Peninsula, is not yet in market, and is not subject to pre-emption; but we are memorializing Congress to make it subject to the same rules of settlement as surrounding lands, and more than

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fifty quarter sections have been covered with claims, by persons who are living on this Peninsula, and expect to hold their claim at $1,25 per acre. The main lands on each side of the Bay will be subject to private entry next year, at 75 cents per acre, having been in the market for nearly ten years now; and are as good as those on the Peninsula.

16. Schools are sustained the year round at the Old and New Missions; and also religious meetings, though there is no preacher now at the Old Mission.

17. This is the great fishing district that supplies an extensive country, with Mackinac trout and white fish; but it is very difficult to catch fish, on a large scale, except with seines.

18. The timber on the Peninsula is, first, sugar maple, affording the best sugar orchards in the world; and much of this timber is curled, and some bird's-eyed, which would doubtless bring a high price, if saved and carried to market as the pine now is; then come beech, hemlock, elm, basswood, cedar, black and white ash, birch, and a few pines. On the main land the timber is the same, with the addition of white and yellow pine, which has been principally bought up by the owners of saw mills. Lumber costs $10 to $12 per thousand feet, at the mills, and $1,50 for bringing it across the bay.

19. This cannot be considered a good soil for grass, especially timothy, as it is too warm and sandy; yet clover does as well as in other places without plaster, which is found on the lake shore in great quantities; but has never been used here, nor manure of any kind.

20. The kind of labor most needed here, is that which properly belongs to a *new* country. The forest must be cleared, cord wood manufactured and sent to market, and farms cultivated. The pine lumber business is now carried on, on the main land immediately around this Peninsula, to its greatest extent, except on Pine river, where it will probably be in a year or two, by a company owning the location. No person can expect to do well here without labor, and the clear bracing atmosphere, and encouraging prospects of ample remuneration, cheer him forward to his task.

The above resolution and statement of facts, were unanimously adopted at a public meeting of the citizens, held September 4th, 1854. The following was added by a citizen, from a register kept for the Smithsonian Institution, December 24th.

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"The first frost, sufficient to kill vines, occurred this year earlier than usual, on the 19th of October. Snow fell first, November 11th, and until then, oxen fed exclusively on timothy stubble, did well with work, and cows in the woods refusing hay. From the 11th to the 20th, snow fell every day but one. Between the 20th and 24th, the snow melted nearly all away. After that, it snowed and thawed alterernately two or three days at a time, until December 8th, when the weather moderated, and the snow went rapidly. This thaw was succeeded by three moderately cold days, and the snow not falling fast enough to prevent it, the bare ground froze hard, and the potatoes remaining undug, are of course frozen. Snow is again falling gradually, and not likely to melt again until spring; for it is now cold enough to produce ice along the beach of the Bay, in sheltered situations. The snow has at no time been more than about six inches deep, except in drifts; and the ground in the woods is destitute of frost. The cold has not yet, (Dec. 23d,) been annoying to a person walking about, except when facing a brisk wind. Dec. 24th—to-day the weather has been moderating, and the snow melting away fast. Dec. 25—The snow is nearly all gone, at 9 P. M., and still melting. By the oldest settlers, this is so far called a very unusual winter here."

A. W. LANGWORTHY,
JOHN S. DIXON,
NORMAN BARNES.
Publishing Committee.

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HILLSDALE COUNTY.

To J. C. Holmes, Esq., *Sec'y of the Mich. State Agricultural Society:*

Dear Sir—Herewith I send you the list of premiums that were awarded at the Fair of 1854 of the Hillsdale Co. Agricultural Society, by which you will perceive that the farmers of this county take a deep interest in these annual gatherings, not only, but display a commendable interest in the agricultural improvements of the day.

The Fair for 1854 was held at Jonesville, the citizens of which village leased and fitted up the grounds for the use of the society.

The enclosure embraced several acres, terraced by nature so that the spectators occupying the grounds near the gates, where the articles on exhibition were mostly displayed, might overlook the ring prepared for the exhibition of horses, and also most of the stock which was stationed outside of the ring.

An admirable address was delivered by R. R. Beecher of Adrian.

Our Society has now had four annual Fairs, and the increasing interest they create among the farming portion of community is very apparent. Although we were, as we think, fully up to if not in advance of some of the neighboring counties so far as our agricultural interests are concerned, yet we feel satisfied that as a county we have progressed much more rapidly during the last four years, in this respect, than at any previous time.

We have a county that when it comes to be appreciated will be considered among the very first in the State for agricultural purposes. Being upon the height of land where most of the rivers of the State take their rise, it is necessarily remarkably well watered—not by a large river bordering its skirts or passing through it—but by numerous rivulets

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and small lakes, which, as they flow together, help to form the larger streams. These waters take their rise, not as is sometimes supposed among marshes and low grounds that are worthless as farming lands, and sources of pestilence, but usually from springs and spring lakes upon the highest grounds. We have marshes it is true, but none to spare; for what we have are beginning to be appreciated and consequently improved, and when improved they are considered the most valuable farming lands we have.

As to soil and timber, this county furnishes a variety. The northern portion of the county has been the longest settled for two reasons. The territorial road from Detriot to Chicago passed through the northern tier of towns, and those towns were the lightest timbered. The noted "Moscow plains" and "Allen's Prairie" are in the northern part of the county. Much of these lands were "burr oak openings." The southern part of the county is timbered land, being well covered with whitewood, black walnut, white oak, hickory, beach and maple. To the emigrant from eastern States this county affords many attractions, which are being appreciated by many new comers.

Yours, very respectfully,

GEO. C. MUNRO,

Secretary.

LIST OF PREMIUMS

Awarded at the Hillsdale County Agricultural Society on Wednesday and Thursday, the 11th and 12th of October, 1854.

CLASS I.—DURHAMS.

No. 18.	Bull	5 years old,	1st	premium,	Leman Strong,	$5 00
No. 5.	"	4 "	1st	"	S. B. White,	5 00
No. 16.	"	2 "	2d	"	A. W. Houghton,	3 00
No. 6.	"	1 "	1st	"	S. B. White,	3 00
No. 12.	"	1 "	2d	"	J. W. Dickinson,	2 00
No. 2.	"	calf 6 weeks old,	2d	"	T. Burt,	1 00
No. 11.	Cow	3 years old,	1st	"	J. W. Dickinson,	5 00
No. 5.	Heifer	2 "	1st	"	T. Burt,	5 00

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No. 9.	Heifer	2	years	old,	2d	premium, J. W. Dickinson,	$2 00
No. 7.	"	1	"	3d	"	S. B. White,	2 00
No. 8.	"	1	"	1st	"	J. W. Dickinson,	3 00
No. 17.	"	1	"	1st	"	E. Marton,	3 00
No. 13.	"	calf,			"	J. W. Dickinson,	1 00
No. 14.	"	"			"	J. W. Dickinson,	50

CLASS II.—DEVONS.

No. 15.	Bull	6	years	old,	1st	premium, W. L. Miller,	$5 00
No. 1.	"	4	"	1st	"	H. Huff,	5 00
No. 2.	"	3	"	2d	"	G. Noyes,	3 00
No. 6.	"	2	"	1st	"	H. Eggleston,	5 00
No. 4.	"	1	"	1st	"	I. Vandenbergh,	3 00
No. 19.	"	1	"	2d	"	W. H. Miller,	2 00
No. 10.	Calf,	1	"	3d	"	H. Eggleston,	1 00
No. 3.	Heifer,	3	"	1st	"	I. Vandenbergh,	5 00
No. 8.	"	2	"	1st	"	H. Eggleston,	2 00
No. 7.	"	2	"	2d	"	H. Eggleston,	2 00
No. 18.	"	2	"	1st	"	W. H. Miller,	2 00
No. 9.	Cow	4	"	3d	"	H. Eggleston,	2 00
No. 17.	Heifer	calf,		1st	"	W. H. Miller,	1 00
No. 5.		"		2d	"	I. Vandenbergh,	50
No. 16.	Cow	7	years	old,	2d	" W. H. Miller,	3 00
No. 14.	"	6	"	1st	"	W. H. Miller,	5 00
No. 12.	"	4	"	3d	"	A. Huff,	3 00

CLASS III.—BLOOD CROSS.

No. 6.	Bull	5	years	old,	1st	premium, F. Fowler,	$5 00
No. 1.	"	4	"	"	"	" T. Burk,	5 00
No. 3.	"	2	"	"	"	" C. L. Treadwell,	5 00
No. 9.	"	1	"	"	"	" H. Huff,	2 00
No. 5.	"	1	"	"	"	" G. W. Uunderwood,	1 00
No. 7.	"	calf,		"	"	A. Haughton,	1 00
No. 2.	heifer	2	"	"	"	" T. Burk,	3 00
No. 4.	"	2	"	"	2	" D. Beebe,	2 00
No. 8.	calf,	6	months	old,	1st	" W. H. Miller,	1 00

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CLASS IV.—CROSS BETWEEN BLOOD AND NATIVE.

No. 17.	Bull	3	years old,	1st	premium, R. Midick,	$5 00
No. 1.	"	2	"	"	" J. Blackmar,	5 00
No. 13.	"	2	"	"	2d " H. Hazen,	3 00
No. 8.	"	calf,			2d " H. Hazen,	1 00
No. 20.	cow	6	years old,		2d " C. Husin,	3 00
No. 2.	"	3	"		1st " J. Blackmar,	5 00
No. 12.	"	3	"		2d " J. T. Blois,	3 00

CLASS V.—CROSS.

No. 3.	Cow	4	years old,	1st	premium,	$5 00
No. 16.	heifer	1	"	"	" G. Stoddard,	3 00
No. 6.	"	2	"	"	" G. Stoddard,	2 00
No. 14.	"	2	"	"	" A. B. Slocum,	3 00
No. 15.	"	2	"	"	" A. B. Slocum,	2 00

CLASS V.—NATIVE.

No. 18.	Bull	5	years old	1st	premium, H. Turner,	$5 00
No. 9.	"	2	"	"	" I. Vandenbergh,	5 00
No. 13.	"	2	"	"	" J. Allpaugh,	3 00
No. 4.	milch cow	8	years old,	2d	prem., J. W. Dickinson,	3 00
No. 8.	Cow	4	years old,	2d	premium, I. Vandenburg,	3 00
No. 12.	"	3	"	1st	" D. Judson,	5 00
No. 10.	Heifer	2	"	2d	" L. R. Gay,	2 00
No. 11.	"	1	"	1st	" J. Whitaker,	3 00

CLASS VI.—WORKING CATTLE.

No. 1.	One yoke working cattle,			1st	premium, R. Worden,	$5 00
No. 17.	"		"	2d	" D. C. Smith,	3 00
No. 10.	"		"	3d	" H. Mallory,	2 00
No. 2.	"	4 year old steers,		1st	" O. Avery,	4 00
No. 29.	"	3	"	2d	" H. B. Chapman,	3 00
No. 19.	"	3	"	3d	" C. Howard,	2 00
No. 5.	"	3	"	1st	" R. Cox,	4 00
No. 21.	"	3	"	2d	" J. Hand,	3 00
No. 14.	"	3	"	3d	" J. Reynolds,	2 00
No. 23.	"	yearlings,		1st	" J. Hand,	3 00
	Best 5 yoke cattle, town Moscow,					10 00

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	2d best 5 yoke cattle, town Fayette,	$5 00
No. 2.	best trained yoke steers, 1st premium, O. Avery,	5 00
	3d best trained yoke steers, 2d prem., O. Avery,	3 00
	Premium awarded to O. Avery as the best cattle trainer,	5 00

CLASS VII.—FAT CATTLE.

No. 4.	Best fat ox, 1st premium, A. Huff,	$3 00
No. 2.	" " C. Proudley,	3 00
No. 1.	Best fat cow, " S. B. White,	3 00

CLASS VIII.—MILCH COWS.

No. 3.	Milch cow, 1st premium, G. Stodard,	$3 00
No. 4.	" 2d " N. D. Howe,	2 00

CLASS IX.—STALLIONS.

No. 14.	Mare horse 10 years old, 1st prem., H. M. Dresser,	$5 00
No. 12.	Mare horse 10 years old, 2d prem., S. Dryer,	4 00
No. 2.	Stallion 4 years old, 3d prem., F. Huff,	3 00
No. 17.	Stallion 3 years old, 1st prem., G. Milligan,	5 00
No. 10.	Stallion 3 years old, 2d prem., J. D. Sears,	4 00
No. 11.	Stallion 3 years old, 3d prem., J. D. Sears,	3 00
No. 5.	Stallion 2 years old, 1st prem., A. Ransford,	4 00
No. 8.	Stallion 2 years old, 2d prem., S. Orr,	3 00

CLASS X.

No. 3.	Brood mare, 1st prem., J. Williams,	$5 00
No. 39.	" 2d " F. Kies,	3 00
No. 2.	" 3d " A. Drake,	2 00
No. 32.	Mare 4 years old, 1st prem., H. Huff,	4 00
No. 13.	Mare 4 " 2d " J. W. Dickinson,	3 00
No. 39.	Mare 2 " 1st " F. Kies,	00
No. 3½.	Mare 2 " 2d " J. Williams,	3 00
No. 22.	Mare 2 " 3d " H. B. Chapman,	2 00
No. 43.	Mare 1 " 1st " H. H. Betts,	3 00
No. 43½.	Mare 1 " 2d " H. H. Betts,	2 00
No. 23.	Mare 1 " 3d " H. B. Chapman,	1 00
No. 26.	Best sucking colt, 1st prem., A. Edwards,	3 00
No. 10.	" 2d " C. H. Westgate,	2 00
No. 26.	" 3d " F. Gardner,	1 00

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CLASS XI.—MATCHED AND SINGLE HORSES.

No. 17.	Span matched horses, 1st prem., J. D. Franklin,	$5 00
No. 3.	Span " 2d " O. Engles,	4 00
No. 37.	" " 3d " L. Howard,	3 00
No. 31.	Single horse, 1st prem., L. A. Brewer,	4 00
No. 4.	2 single horses, 2d " L. Benson,	3 00
No. 18.	3 " 3d " J. D. Franklin,	2 00
No. 31.	Span matched 3 years old, 1st prem., G. H. P.,	5 00
No. 29.	" " " 2d " A. Edwards,	4 00
No. 2.	" " " 3d " C. Griswold,	3 00
No. 32.	Colt 3 years old, 1st prem., A. J. Edson,	3 00
No. 4.	Colt 3 " 2d " D. C. Kies,	2 00
No. 16.	Colt 2 " 1st " H. B. Chapman,	3 00
No. 44.	Colt 2 " 2d " L. Miller,	2 00
No. 26.	Colt 2 " 3d " S. L. Gay,	1 00

CLASS XII.—SPANISH MERINO SHEEP.

No. 16.	Buck 3 years old, 1st prem., I. Vandenberg,	$3 00
No. 23.	Buck 3 years old, 2d prem., L. Strong,	2 00
No. 21.	Buck 3 years old, 3d prem., L. Miller,	1 00
No. 2.	Buck, 1st prem., F. Huff,	3 00
No. 22.	Buck, 2d prem., L. Miller,	2 00
No. 21.	Buck, 3d prem., L. Strong,	1 00
No. 28.	Buck 1 year old, 1st premium, L. Strong,	2 00
No. 5.	" 1 " 2d " D. Birdsell,	1 00
No. 1.	Pen 5 ewes 3 years old, 1st premium, A. Huff,	5 00
No. 11.	" 5 " 3 " 2d " A. Huff,	3 00
No. 12.	" 5 " 2 " 1st " A. Huff,	3 00
No. 18.	" 5 " 2 " 2d " I. Vandenberg,	2 00
No. 25.	" 5 " 1 " 1st " L. Strong,	3 00
No. 19.	" 5 " 1 " 2d " I. Vandenberg,	2 00
No. 13.	" 5 lambs, 1st premium,	3 00
No. 20.	" 5 " 2d " I. Vandenberg,	2 00

CLASS XIII.—FRENCH.

No. 1.	Buck 3 years old, 1st premium, A. Kies,	$3 00
No. 3.	Five ewes 3 " " J. W. Dickinson,	3 00

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CLASS XV.

No. 1. Five ewes 3 years old, 1st premium, A. Kies,..... $5 00
No. 2. " 1 " " A. Kies,..... 3 00
No. 3. Two lambs, " A. Kies,..... 3 00

GRADE SHEEP.

No. 1. Buck 2 years old, 1st premium, S. Ralph,..... $3 00
No. 2. " 1 " " " 2 00
No. 3. " 1 " 2d premium, " 1 00
No. 4. Pen 5 ewes 3 years old, 1st premium, S. Ralph,..... 5 00
No. 9. " 5 " 1 " " " 3 00
No. 6. " 5 " 1 " " " 3 00
No. 7. Buck 1 " " " 3 00

CLASS XVII.—LONG AND MIDDLE WOOL SHEEP.

No. 1. Buck 2 years old, 1st premium, T. Burt,..... $2 00
No. 3. Pen 5 ewes 3 years old, 1st premium, J. W. Dickinson, 5 00
No. 2. " 5 " 2 " " " 3 00
No. 2. " 5 " 2 " " 8 00
No. 4. " 5 " 3 " 2d premium, J. White,..... 3 00
No. 5. Five lambs, 1st premium, J. White,..... 3 00
No. 6. Buck 2 years old, 1st premium, L. Miller,..... 2 00
No. 7. " 1 " " M. Mills,..... 3 00
No. 9. Leicestershire, a good lamb worthy of notice, G. W. Underwood.

CLASS XIII.—FAT SHEEP.

The fat sheep on the ground were by the committee considered not worthy of notice.

CLASS XVI.—SWINE.

No. 2. One boar 1st premium, S. E. Smith,..... $3 00
No. 1. " 3d " J. W. Sampson,..... 1 00
No. 4. One sow 1st " B. French,..... 3 00
No. 2. " 3d " J. W. Sampson,..... 1 00
No. 2. One pen 5 pigs, 3d prem., " 1 00
No. 4. " 4 " 2d prem., C. Stimpson,..... 2 00
No. 4. " 5 " 1st prem., B. French,..... 3 00

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CLASS XX.—POULTRY.

No. 9.	One lot bantams,	1st premium,	J. W. Dickinson,	$1 00
No. 12.	" Shanghaes,	"	A. Mallory,	1 00
No. 16.	" cross breed,	"	B. C. Benson,	1 00
No. 17.	" China geese,	"	S. H. Post,	1 00
No. 19.	" turkeys,	"	M. Leonard,	1 00
No. 25.	" native chickens,	1st prem.,	H. H. Ferris,	1 00
No. 26.	" guinea fowls,	"	"	1 00
No. 27.	" turkies,	"	I. Vandenburg,	1 00
No. 29.	" 50 shanghaes,	"	H. Eggleston,	1 00
No. 31.	" muscovy ducks,	"	L. Dewey,	1 00
No. 33.	" brahma pootra,	"	C. Westfall,	1 00
No. 24.	" Cochin China,	"	L. Turnpiny,	1 00
No. 7.	" 1 pair Polands,	"	L. C. Tucker,	1 00
No. 20.	" white ducks,	"	H. Chapman,	1 00
No. 23.	" chittagongs,	"	S. A. Rising,	1 00

CLASS XXI.—FARM IMPLEMENTS.

No. 1.	One corn sheller,	1st premium,	Munro & Lewis,	$1 00
No. 2.	One root cutter,	"	"	1 00
No. 8.	5 milk pans,	"	"	1 00
No. 4.	One corn planter,	"	R. S. Pinney,	1 00
No. 10.	One horse power,	"	J. W. Dickinson,	3 00
No. 13.	" & stump cutter,	1st prem.,	J. W. Dickinson,	2 00
No. 15.	One bee hive and bench,	1st prem.,	R. Bullard,	1 00
No. 16.	" sod plow,	"	O. & B. Gale,	1 00
No. 17.	" old land plow,	"	"	1 00
No. 18.	" sub soil "	"	"	1 00
No. 19.	" corn cultivator,	"	"	1 00
No. 22.	" grass seed sower,	"	H. C. Mallory,	1 00
No. 23.	" corn stalk cutter,	"	J. C. Drury,	1 00
No. 26.	Blinds,	1st premium,	W. Tuller,	1 00
No. 27.	Churn, "		W. Beckit,	1 00
No. 39.	Carriage harness,	1st premium,	E. T. Chester,	1 00

CLASS XXII.

No. 3.	Span of horses plowed $\frac{1}{4}$ of an acre 10 inches deep in 43 minutes time,	1st premium,	I. Vandenberg,	4 00

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CLASS XXIII.—BUTTER, CHEESE, AND BREAD.

No. 1.	Lot butter, 19 lbs., 2d premium, Huff,	$1 00
No. 4.	2 loaves hop yeast bread, 2d premium, D. Birdsall,	50
No. 5.	2 " brown " 1st " "	50
No. 8.	Crock May butter, 1st premium, N. D. Howe,	2 00
No. 9.	Crock roll " " " "	2 00
No. 11.	26 cheese, " " W. N. Guy,	1 00
No. 13.	30 cheese, 2d " N. D. Howe,	50
No. 14.	2 loaves yeast bread, 1st premium, H. Johnson, Jr.,	50
No. 15.	" milk " " " W. C. Pierce,	50
No. 16.	Loaf hop rising bread, 2d premium, Mrs. J. B. Graham,	50

The balance of the articles not worthy of notice.

CLASS XXIV.—SUGAR AND HONEY.

No. 6.	Maple sugar, 1st premium, Tarpinning,	$1 00
No. 1.	" " 2d " Mrs. Huff,	50
No. 5.	Cap of honey, 1st premium, Nelson Palmer,	1 00
No. 2.	drawn " 2d " S. W. Rising,	50

CLASS XXV.—DOMESTIC MANUFACTURES.

No. 1.	White quilt, 1st premium, Mrs. E. G. Dilla,	$1 00
No. 1.	4 prs. cotton stockings, 2d premium, Mrs. E. G. Dilla,	50
No. 7.	Pr. woolen socks, 1st prem., N. D. Howe,	50
No. 11.	Piece scarlet flannel, 1st prem., Misses Cleveland,	1 00
No. 12.	" white " " "	1 00
No. 14.	Woolen shawl, " "	1 00
No. 17.	Woolen yarn, " "	1 00
No. 19.	Pr. cotton stockings, " "	50
No. 21.	Pr. worsted " " "	50
No. 24.	Pieced quilt, " C. Hollingsworth,	1 00
No. 22.	Skein corded worsted, " Smith,	50
No. 24.	Piece carpet, 1st premium, Mary Huff,	1 00
No. 25.	" 2d " "	50
No. 29.	Coverlet, 1st " W. Purdy,	50
Nos. 40 & 41.	Pr. blankets, 1st premium, Mr. Turpining,	1 00
No. 44.	Roll of cloth, 2d prem., L. Emery,	50
No. 45.	Hearth rug, 1st premium, Mrs. Joel Hand,	1 00

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CLASS XXVI.—DOMESTIC MANUFACTURES.

No. 2. Pr. coarse boots, 1st premium, L. Smith,..... $1 00
No. 4. Pr. brogans, " " " 50

CLASS XXVII.—DOMSTIC MANUFACTURES.

No. 15. Two horse carriage, 1st premium, W. O. Hoeg,..... $3 00
No. 1. " " 2d " J. W. D.,..... 2 00
No. 11. One horse " 1st " A. Bedford,..... 2 00
No. 9. " " 2d " H. Huff,..... 1 00
No. 13. Sulkey, 1st " A. Bedford,..... 1 00
No. 12. Cutter, " " " 1 00
No. 2. Bureau, 1st " S. P. Purdy,..... 1 00
No. 3. Bedstead, " " " 1 00
No. 4. Sett chairs, " " " 1 00

CLASS XXVIII.—NEEDLE, SHELL, & WAX WORK.

No. 1. Pair muslin under sleeves, 1st premium, Mrs. H. B. Tucker, ... $1 00
No. 3. Pair lamp mats 1st prem., Mrs. F. Gardner,..... 1 00
No. 3. " " 2d " " 50
No. 6. Ottoman cover, 2d prem., " 50
No. 8. Vase flowers, 1st prem., " 1 00
No. 10. Table cover, 2d prem., Mrs. J. Hand,..... 50
No. 11. Worked collar, 1st prem., Mrs. L. Smith,..... 1 00
No. 12. Child's dress, 1st prem., Miss E. A. Ferris,..... 1 00
No. 13. Cape, 1st prem., Miss E. A. Ferris,..... 1 00
No. 16. Pair under sleeves, 2d prem., Mrs. H. B. R.,..... 50
No. 10. Specimen worsted work, 1st prem., Mrs. W. B. Hawkins, ... 1 00
No. 21. Worked collar, 2d prem., Mrs. A. B. H.,..... 50
No. 22. Vest and apron, 1st prem., M. J. Culbert,..... 1 00
No. 23. Ottoman cover, 1st prem., Mrs. M. Franklin,..... 1 00
No. 28. Satin bonnet, 1st prem., Mrs. Potter,..... 1 00
No. 29. Lace cap, 2d prem., Mrs. Turpening,..... 50
No. 31. Worked h'dk'f, 2d prem, H. Waldron,..... 50

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CLASS XXVIII.—FRUIT.

No. 18.	Lot 24 varieties of apples, 1st prem., E. Buck,	$2 00
No. 2.	" " " 2d prem., H. Parker,	2 00
No. 3.	Lot fall " " 1st " C. Proudly,	2 00
No. 10.	Lot fall apples, 2d prem., James Wade,	1 00
No. 7.	Lot quinces, 1st prem., D. Birdsall,	1 00
No. 7.	" " 2d " A. W. Pierce,	50
No. 13.	Peck " 1st " G. A. Smith,	1 00
No. 16.	" " 2d " N. Palmer,	50
No. 19.	Lot peaches, 4 varieties, 1st prem., I. A. McCollum,	2 00
No. 14.	Lot peaches, 3d prem., F. Huff,	1 00
No. 6.	Peck peaches, 1st prem., Mrs. D. Birdsall,	1 00
No. 1.	Lot pears, 1st prem., H. B. Tucker,	2 00
No. 74.	Lot grapes 1st prem., M. H. Andrews,	1 00
No. 8.	Lot 17 varieties apples, 2d prem., Mrs. D. Birdsall,	1 00
No. 22.	Lot 24 varieties apples, 2d prem., Mrs. Gardner,	1 00

CLASS XXX.—FIELD CROPS AND VEGETABLES.

No. 11.	12 onions, 1st premium, C. Proudly,	$0 50
No. 6.	10 beets, 1st premium, H. B. Chapman,	50
No. 14.	10 parsneps, 1st prem., C. Gregory,	50
No. 47.	5 heads cabbage, 1st prem., W. Van Aken,	50
No. 53.	2 winter squashes, 1st prem., I. C. Gaige,	50
No. 33.	Peck sweet potatoes, 1st prem., R. Gardner,	50
No. 36.	Peck other potatoes, 1st prem., L. Ferry,	50
No. 41.	10 carrots, 1st premium, L. M. Brown,	50
No. 43.	5 stalks cellery, 1st " W. Tribe,	50
No. 23.	Peck white beans, 1st premium, J. Smith,	50

CLASS XXXI.—FLOUR AND GRAIN.

No. 5.	12 ears corn, 1st premium, A. M. Rising,	50
No. 9.	Peck buckwheat, 1st " H. B. Chapman,	50
No. 10.	" timothy seed, 1st premium, "	50
No. 11.	" peas, 1st premium, "	50
No. 12.	" potatoes, 1st " "	50
No. 13.	" corn, 1st " "	50
No. 20.	" wheat, 1st " G. Stoddard,	50
No. 13.	" seed corn, 1st premium, L. R. Gay,	50

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CLASS XXXII.—STOVES AND PLANISHED WARE.

No. 5. Black Warrior cook stove, 1st premium, Munro & Lewis, $1 00
No. 10. Ocean parlor stove, " S. W. Smith,.. 1 00
No planished ware on the ground.

CLASS XXXIII.—FARMS AND NURSERIES.

First premium allowed to Frederick Fowler, of Reading, for the best farm,.....$15 00
2d premium, Saint W. Rising, Reading, for the 2d best farm,. 10 00
3d " L. Green Pittsford, 3d best farm,..... 8 00
1st " allowed Haynes Johnson, Jr., for the best nursery, Hillsdale,..... 10 00
2d premium allowed to Jesse Maxom Pittsford, 2d best nursery, 5 00

CLASS XXXIV.—UNENUMERATED ARTICLES.

No. 6. Lot baskets, J. Havenor,..... $0 50
No. 10. " citron preserves, Mrs. Huff,..... 50
No. 15. Alum fruit basket, Mrs. Birdsall,..... 50
No. 20. Work basket, Mrs. Smith,..... 50
No. 1. Vase dried grasses and flowers, Mrs. L. Smith,..... 50
No. 24. Bottle wine, Mrs. P. Drosser,..... 50
No. 25. Cage canary birds, I. Vandenberg,..... 50
No. 28. Leather work, A. B. Hinman,..... 50
No. 33. Bottle grape wine, C. T. Delevan,..... 50
No. 37. " currant " Brewer & Andrews,..... 50
No. 38. Lot house plants, Mrs. F. Gardner,..... 50
No. 42. Cabinet of minerals, W. Kelly,..... 50
No. 44. Muslin boquet, Miss E. M. Baxter,..... 50
No. 55. Monochromatic painting, J. King,..... 50
No. 57. Ham, R. Nogg,..... 50
No. 68. Tool chest, R. F. Smith,..... 50
No. 60. Baby sack, Mrs. R. Nimmocks,..... 50
No. 62. Washing machine, N. C. Wolcott,..... 50
No. 64. Pair gaiters, Mrs. W. Tuller,..... 50
No. 74. 2 varieties of grapes, H. M. Andrews,..... 50
No. 65. Colored crayon, Miss F. J. Cressy,..... 50
No. 60. Oil painting, West Point, Miss F. J. Cressy,..... 50

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No. 67. Oil painting, Ruins of Roteln, Miss F. J. Cressy, ... $0 50
A premium allowed C. Hunt for best acre corn, ... 2 00
" " R. McGreger, " potatoes, ... 2 00

GEORGE C. MUNRO,
Secretary.

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IONIA COUNTY.

LIST OF PREMIUMS

Awarded by the Ionia County Agricultural Society, at the Annual Fair of said society, held at Ionia, October 18th and 19th, 1854., being the second fair of said society.

HORSES.

Best stallion, J. T. Vantassel,	$4 00
2d best stallion, S. M. Wilcox,	2 00
Best Brood mare and colt, J. B. Welch,	2 00
2d best " " M. VanVleck,	1 00
Best span matched horses, E. O. Clark,	4 00
Best span draught " J. B. Welch,	4 00
Best span matched horses for all work, H. Borden,	4 00
2d best span matched horses for all work, A. H. Russel,	2 00
Best pr. roadsters, J. M. Kidd,	4 00
2d best pr. roadsters, C. Matthews,	2 00
Best 3 years old colt, W. Toan,	1 50
2d best 3 years old colt, C. Matthews,	1 00
Best 2 years old colt, C. B. Mitchell,	1 25
2d best 2 years old colt, J. B. Welch,	75
Best yearling colt, Levi Taylor,	1 00
2d best yearling colt, Lewis Willey,	50

CATTLE.

Best pr. working oxen, L. Harwood,	$3 00
2d best " N. K. Brooks,	2 00

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Best milch cow, S. Hemmingway,	$1 00
2d best milch cow, J. M. Babcock,	50
Best bull calf, J. Cushing,	50

SHEEP.

Best buck, Alonzo Sessions,	$3 00
2d best buck, Marvel Haight,	2 00
Best yearling buck, A. Sessions,	1 50
2d best 5 yearling buck lambs, A. Sessions,	2 00

SWINE.

Best boar, Wm. Toan,	$1 50
2 best boar, Cha's. Smith,	1 00
Best sow, Tho's. Cornell,	1 00
2d best sow, Cha's. Smith,	50
Best litter pigs, T. Cornell,	1 50

FOWLS.

Best cock and 2 hens, L. Moore,	$1 00
2d best cock " C. Lovell,	50
Best lot of fowls, S. Hemingway,	1 00

GRAIN.

Best corn, (12 rowed yellow,) A. Sessions,	$3 00
2d best corn, " " John R. Stone,	1 00
Best sample of wheat, A. Sessions,	50
" barley, E. A. Clark,	50

FRUIT.

Best apples, pears and quinces, Tho's Cornell,	$1 50
2d best " " " Wm. Babcock,	25

DOMESTIC MANUFACTURES.

Best roll carpeting, Mrs. Ja's Udall,	$0 50
2d best " Cha's Smith,	25
Best lamp mat, Cha's Bean,	25
2d best " Miss Delia Irish,	25
Best lace work, Miss Delia Irish,	25
2d " Mrs. Jos. Mills,	12

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Best worked slippers, Mrs. Jos. Mills,	$0 25
2d best " Mrs. Cha's Bean,	12
Best pieced quilt, Mrs. H. F. Barstow,	50
2d best " Mrs. Geo. Richmond,	25
Best woolen coverlet, Mrs. R. W. Phillips,	50
2d best " Mrs. Lyman Stone,	25
Best worsted hat, Mrs. P. B. Haight,	25
" Ottoman cover, Mrs. H. T. Barstow,	25
" embroidery work, Miss Delia Irish,	25
" tidy, Mrs. Cha's Bean,	25
" roll domestic flannel, Mrs. E. English,	50
" table linen, Mrs. James Udall,	25
" landscape drawing, Miss Yates,	25
2d best " Miss Daggett,	25
Best basket wax fruit, Miss Vincent,	25

MISCELLANEOUS.

Best plow, J. Bower & Co.,	$1 00
" butter and cheese, E. Yeomans,	1 00
2d best butter and cheese, Lyman Stone,	50
Best honey, Hiram Brown,	50
2d best honey, Amos Ives,	25
Best potatoes, Chas. Smith,	2 00
" onions, L. Moore, Jr.,	50
" cabbage, J. C. Blanchard,	25
" rutabaga, P. Varnum,	25
" beets, P. Varnum,	25
" white turnips, C. W. Fullington,	50
" flat turnip seed,	25
" 30 lbs. rutabaga,	50

The above is a list of the premiums awarded by the several committees at the fair. It is impossible to give the report of the committees in full, as many of them were not reduced to writing, and those that were, were upon small pieces of paper which cannot be found at present, and the former Secretary having neglected to make a record of them, they are irrecoverably lost. I have not even the means of knowing the names of the persons composing the committees. At the close of the fair, the members of the Society being called to order by the

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President, the following named persons were elected officers for the ensuing year:

President.—Alonzo Sessions.

Corresponding Secretary.—E. R. Powell.

Recording Secretary.—A. R. Cornell.

Treasurer.—John R. Stone.

Executive Committee.—Cyrus Lovell, Jas. M. Kidd and Asa Spencer.

Marshal.—R. W. Phillips.

Assistant Marshal.—J. B. Welch.

Vice Presidents.—A. Spencer, Otisco; J. M. Webster, Portland; Chas. Matthews, Orange; Chas. W. Ingalls, Sibewa; M. Van Vleck, Ronald; Seneca King, Orleans; A. C. Smith, Keene; Edson English, Boston; W. J. Brooks, Danby; Calvin Nash, Campbell; Levi Ferguson, Lyons; L. Burdick, Ionia; George W. Germain, North Plains; Erastus Yeoman, Easton; Emery Russell, Odessa; Wm. Babcock, Berlin.

The Executive Committee held a meeting, March 1st, 1855, and agreed upon a list of premiums to be awarded this fall, and also appointed the necessary committees. They will spare no pains to make the next fair one which shall be a credit to the county.

A. R. CORNELL,

Secretary.

To J. C. Holmes, Esq., *Sec'y Mich. State Agricultural Society.*

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KALAMAZOO COUNTY.

J. C. HOLMES, ESQ., *Sec'y Michigan State Agricultural Society:*

The 9th Annual Fair, for the County of Kalamazoo, was held on the 5th and 6th days of October, at the County seat, as usual.

As might have been expected, it was a perfect throng and a perfect triumph. Men of all ages, shapes, sizes and conditions, helped to swell the crowd; and (just as it should be) the other sex was almost equally represented in point of numbers and equally caught the excitement.

By one, tolerably familiar with human nature, every phase of feeling might have been distinctly traced. This one's countenance plainly denoted that he was satisfied that his was the best horse on the ground, and unless there was something wrong in the constitution of the committee, the first premium would certainly be his; while just beyond him, peered another face which betrayed a tell-tale expression of mingled doubt, and hope, and fear, as to the fate of his mare and colt.

This good house-wife, as she stood modestly back, and listened to the many flattering remarks which were dropped over her crock of butter, enjoyed such a triumph as few only can realize, who have not been similarly situated; while equally elated with pride, was the matron whose wool and warp were closely scanned; its texture nicely scrutinized by amateurs and encomiums lavished upon it without stint.

With all this we find no fault; indeed, we attest to its perfect accordance with propriety and right. Than upon this occasion never did Kalamazoo appear to better advantage.

The 10,000 present furnished sufficient evidence that the enterprise was fully appreciated and endorsed. Success in any project which has

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for its aim the general welfare, is always the verdict of the intelligent and patriotic.

At this time, the exhibition and the competition was unusually spirited and praiseworthy. Hundreds of applications for entry of articles were denied, because presented beyond the advertised hour for that purpose.

Notwithstanding, there was enough—pens devoted to sheep and hogs were full; the stalls for horses and cattle were all occupied, and the various buildings for machinery, for farming implements, for seeds and for household manufactures, were filled to their utmost capacity. What more could be reasonably asked or expected? and yet the society is scarcely out of its cradle. If (we would inquire) so much has been consummated "in the green tree," what will be its condition "in the dry?" For these results, great thanks are due to its pioneers and its projectors, for their energy and determination in carrying it through many dark and doubtful hours of experiment. Few fully realize the multiplicity of obstacles and hindrances which continually presented themselves, or know anything of the adverse feeling and influence which occasionally met the efforts of its earliest champions; but success—such complete success, crowning the enterprise amply repays them for the annoyance with which they had to contend.

The Society is at length so firmly imbedded in the hearts of the populace, that no fears for its future prosperity, or its perpetuation, need be entertained. In almost every direction, the fruits of the organization are palpable. Go where you will, throughout the county, or even into those adjoining, and a manifest improvement in whatever pertains to agriculture meets the eye. Yielding to a spirit of emulation, you will see farm houses assuming an appearance of neatness, comfort and taste; fences better arranged, better constructed, and affording fewer opportunities for the incursions of animals running at large, and consequently, in a measure, nullifying the necessity for a "*pound and its keeper.*"

The most casual observer cannot fail to detect an improved system of tillage—deeper plowing, better crops, and an *encouraging deficiency in noxious plants.*

He will see cattle and sheep better fed—better cared for—better protected from the storm, and better fitted for the yoke, the milch-pail and the shambles.

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In addition to all this, every speaker who addresses us, blending science with practical husbandry, has engendered a species of mania among the fraternity for reading periodicals devoted to agriculture, and this proving introductory to more general knowledge, more vitality is discernable in a proper support of schools. This is all the legitimate fruit of these associations. A general convention of farmers, once a year, assembled upon the fair ground for the purpose of eliciting from each other new ideas, cannot possibly fail to be happy and beneficial in its effects.

It's here the failure of this or that crop provokes argument and discussion; and pitting experience against experience and not unlike the attrition of the steel and the flint, light after a while appears. Diseases of animals, (a fruitful theme of conversation) well repays the time consumed in that direction. The general condition of crops everywhere, and the probable supply and demand, with many decides the question as to the proper time for the disposal of their surplus products.

The exchanging of seeds, as well as of ideas, helps to increase the benefits of these gatherings, and consequently many are the valuable arrangements which grow out of this familiarity. Not unfrequently, conceding to argument, a farmer's whole course of husbandry has been changed, and he has been persuaded to adopt a system more in accordance with the improvements of the age in which he lives. You find them, under impulses drawn perhaps from remarks dropped from the platform, abandoning their prejudices and their superstitions and consulting science more and the moon less.

Now all these results, we contend, are the legitimate fruit of agricultural gatherings. The men who first identified themselves with the enterprize were not only practical but intelligent; not farmers all, but professional men, merchants to some extent, and mechanics. No meeting in Kalamazoo County has ever been more ably attended than the incipient one at Schoolcraft, in 1845. It was in the dead of winter, amid snow and sleet, that the foundation of the Kalamazoo Agricultural Society was laid, and the frosts of ten winters which have succeeded, have had no effect upon it. It then and there received an impetus which has borne it on to its present position. Who can with anything like accuracy, calculate its value and its advantages to this section of the west? Had the State poured into the Treasury of the County a half

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a million of money it would not have conferred upon our population a moiety of the benefits which have already accrued.

In making their report at this time, the committee derive pleasure, not only from viewing its present condition, but from traveling over the field of their past labors and contemplating their victories over early struggles.

They sometimes venture to flatter themselves that they have not entirely lived in vain; that their efforts have not been wasted in their attempts to promote the interests and the condition of that class of their citizens whose whole talk has too long been only of bullocks. With this thought is still associated one upon which more than any other they have reason to plume themselves, and that is, that their efforts in this direction were the pioneer efforts of the State. Other counties may have dreamed of the project, but it was only a dream; even the State society, now appearing in giant proportions and still anticipating loftier achievements, was then scarcely in "embryo," and yet we call it parent —strange relationship, indeed, a parent younger than its child—but after all, what too strange in this age of progress!

It would seem, however, that Kalamazoo should have taken the first step in this great scheme; inasmuch, as we who are wedded to its interests, its prosperity and its soil, are half inclined to regard it as the banner agricultural county of Michigan.

Where, we would ask, will you find another combining such a variety of soils, and which is so well calculated to meet the wants of the most fastidious husbandman?

Have we not more prairie than any other? Largely so. Have we not as little, if not less broken and waste land? Are we not, in the main, accommodated as well with water as any other? A brief synopsis of the variety of soil in our county, may not be unimportant or inappropriate. The reports of the County Society to the State Society, are annually collected and published, making a volume of several hundred pages, and are circulated widely at home and abroad. These volumes are referred to not unfrequently by the emigrant, in order to decide the site of his future home.

With this object in view, we propose to avail ourselves of the opportunity of casually adverting to certain facts connected with the agricultural condition of our county.

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In population (being about 17,000) we rank the sixth in the State, and embraced within our limits are the thrifty and well-built villages of Kalamazoo, Schoolcraft, Galesburg, Richland and Yorkville.

Sixteen townships, of 36 sections each, go to make up a county of 24 miles square.

The entire amount of acres will be found, therefore, to be 368,640, and they comprise almost every variety of soil known to Geology.

The following, in round numbers, will be found to furnish a fair index to its several soils:

1. Of prairie,	52,640
2. Of timbered land,	65,000
3. Of oak land,	232,000
4. Of marsh land, (fit for the scythe,)	12,000
5. Of swamp, (at present of no value,)	3,000
6. Of lakes,	4,000
	368,640

Its 52,640 acres of prairie may, with propriety, be considered its choicest land for agricultural purposes. On these, with the adoption of modern ideas of husbandry, its crops are reliable beyond that of any other soil.

With deep plowing, the use of a drill, and an eye to the proper variety of seed, it may safely be expected to yield from 30 to 45 bushels of wheat per acre.

Whether the seasons be wet or dry—the winter be long or short, open or covered with snow and sleet, the above range may be calculated upon with mathematical certainty; (always excepting those unavoidable contingencies, rust, insects and hail.) The same success awaits it when devoted to corn, or oats, or clover. A vegetable mold constitutes its soil; or in other words, an annual resurrection and decay of vegetation which has been going on for centuries, interspersed occasionally with ashes from the burning of wild grass, and ammonia sent down from heaven—all this, resting finally upon a hard-pan sub-soil, varying in depth from 2 to 4 feet.

By an approved system of clovering and depasturing, and occasionally turning under a summer's growth, its fertility may be rendered perpetual. To Kalamazoo county, this 52,640 acres is a mine of wealth be-

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yond that of India or California, because in the one case the more you delve in it properly, the more you add to its gold-bearing properties; while one thorough overhauling takes from the other its value, present and prospective.

Next in intrinsic worth is the 60,000 acres of land known as *timbered land*—that is, such as bears upon its bosom a heavy growth of maple, beech, ash, basswood, whitewood and walnut. A soil that shoots up into the sky a dense mass of such vegetation is valuable for its natural production, and carries upon its face conclusive evidence of unusual fertility. A "higher power," in wisely bestowing upon our county 65,000 acres of such timber, has given us just such a proportion as we could wish, in order to supply all our necessities and to impart to the remainder additional value.

After this follows next in order the 232,000 acres of land known in general terms as the oak openings. These, though classified by themselves, require subdivision, in order to convey to some a correct idea of our meaning; because the oak openings vary in richness according to their several natural productions. For instance, a portion of it, perhaps 30,000 acres, are more or less covered with what is termed the burr oak; a kind which with many shadows forth the most desirable soil of any in Michigan; and we do not hesitate to admit it much the best of any of the oak classification. Then comes the black oak and hickory mixed, next in value to the burr oak, particularly for the wheat crop; then again the white oak and black oak growing together in nearly equal proportions; then the entire white oak, and after that a body of land covered with very little timber of any kind—each taking precedence for desirability in the order which we have adopted in speaking of them. As a body these oak lands will compare favorably with similar lands in any portion of Michigan.

Calhoun and Jackson Counties are almost wholly made up of these, and yet few outrank them in agricultural value. The 12,000 acres of marsh or natural meadow in Kalamazoo, which we have laid down in our estimate in the County, is highly prized and indeed, in some locations, commands as high a price as $100 per acre. In the early settlement of the State these were a "*sine qua non*," inasmuch as the pioneers could not very well have made any headway without them. Within our limits are perhaps 3,000 acres of swamp land, which at present re-

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ceive no attention, in consequence of cost of drainage and other expenses necessary to bring them into a condition to receive the plow or the scythe. For the present, therefore, they are treated as waste lands and will so remain until a denser population and an enhanced value attaches to adjoining acres, sufficient to repay the cost of wresting them from their uselessness. Some 3,000 or 4,000 of water (not an acre too much) finishes the assortment. These are grouped together in some half a dozen different townships, forming so many delightful lakelets, clear and healthful, and to some extent abounding in fish.

Wherever they happen to be, they are hailed as invaluable accessions, and impart additional worth to adjacent premises.

Thus succinctly the committee have endeavored to embrace in their report for 1854, much matter which may seem to be disursive and irrelevant, yet a desire to develop this portion of the State with truthfulness, and to induce other portions to pursue a similar course, has undoubtedly contributed to the result.

Michigan has nothing to be ashamed of, and needs only to be fairly developed to be sought and admired.

We might, without the slightest departure from propriety, swell our remarks into a little volume, and at times, we have been half inclined to extend them, so as to embrace much that might be of interest, in detailing the minutiæ of our agricultural success. We might speak of the various systems of husbandry adopted, with their various success; of well appointed farms contrasted with others upon which the light of science has been excluded by prejudice, but we desist from the purpose, fully satisfied with the truth that Kalamazoo is fairly on the way to agricultural proficiency. We'll not stop to boast of our flocks of sheep, or our herds of cattle, or our droves of horses—we'll only delay long enough to remark, that by the aid of a kind Providence, and a well directed and intelligent industry, Kalamazoo has prospered and is prospering.

We cannot suppress the admission, that to much of this prosperity we are indebted to the County Agricultural Society.

For information relative to the business operations of the Society, I refer you to the following report from the Secretary.

F. W. CURTENIUS,

Chairman.

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At the annual meeting of the Kalamazoo County Agricultural Society, held at Judge Sleeper's office in Kalamazoo on Tuesday, Jan. 3d, A. D., 1854.

Present, John Millham, President.

John Sleeper, Treasurer.

A. D. Allen, Secretary.

A. Y. Moore, John F. Gilkey, Aaron Eames, Alfred Thomas, F. W. Curtenius, Executive Committee.

On motion the following premiums were awarded on field crops, to wit:

Best acre of clover seed, (quantity 2½ bushels,)					$3 00
" " " corn,	"	75	"		5 00
" " " potatoes,	"	300	"		3 00

On motion,

Resolved, That the ninth annual fair of the Kalamazoo County Agricultural Society be held at Kalamazoo on Wednesday and Thursday the 4th and 5th days of October next, and that all entries of live stock must be made before 2 o'clock, P. M., the first day, and that the several committees commence their examination at 3 o'clock, P. M., the same day. And the entries of all other articles must be made on the first day of the fair.

Resolved, That A. Y. Moore, J. F. Gilkey, and the Recording Secretary, be appointed a committee to make out a list of premiums to be awarded at the next annual fair, and that said committee report at the next meeting of the executive committee.

Resolved, That the sum of $25 be allowed the Recording Secretary for his services during the present year.

Resolved, That a plowing match take place on Thursday, the 1st day of June next, and that John Millham be appointed to select suitable ground for the plowing match, and report at the next meeting of the executive committee.

Adjourned to meet again on Saturday the 6th day of May next, at 10 o'clock, A. M.

SATURDAY, May 6, 1854.

The Executive Committee met pursuant to adjournment.

Present John Millham, President.

John Sleeper, Treasurer.

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A. D. Allen, Secretary.

S. S. Cobb, Corresponding Secretary.

A. Y. Moore, Aaron Eames, F. W. Curtenius, Committee.

The committee on business would report and recommend a list of premiums, which was

On motion, accepted and adopted.

Mr. Millham, from committee appointed to select suitable ground for plowing match, made report that he had selected a piece of ground on the farm of Richard Millham, in the town of Portage. Report accepted and adopted.

Resolved, That S. S. Cobb, A. Thomas and John Millham, be appointed a committee to be styled the "Auditory Committee," for the ensuing year, whose duty it shall be to audit all claims against the society, (except for premiums) and endorse the amount allowed on each claim, and upon such account being so allowed, that the Recording Secretary file the same with the papers belonging to the society and draw his order on the Treasurer for amount of same; and that said Secretary keep a correct account of all orders so drawn.

Resolved, That John Millham and A. Y. Moore, be a committee to prepare the ground for the plowing match, and that the plowing match commence or entries to be made by 10 o'clock A. M., on the first day of June.

Adjourned without day.

AMOS D. ALLEN, *Sec'y.*

The first annual plowing match of the Kalamazoo County Agricultural Society was held on the farm of Richard Millham, in the township of Portage, on Thursday, the 1st day of June, A. D. 1854, at which the following premiums were awarded by the committee on plowing, to wit.:

Best plowing with 3 or 4 horses, or two yoke of cattle, Isaac Cox, $6 00

2d best plowing with 3 or 4 horses or two yoke of oxen, Wm. Millham, ... 5 00

3d best plowing with 3 or 4 horses or two yoke of oxen, E. Durkee, ... 4 00.

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Best plowing with 2 horses or one yoke of oxen, M. Millham,.. $6 00
2d best plowing with 2 horses or one yoke of oxen, H. Beckwith, 5 00
3d best " " " Mr. Billings, 4 00
4th best " " " Mr. Sherwood, 3 00

AMOS. D. ALLEN, *Sec'y.*

At a meeting of the Executive Committee of the Kalamazoo County Agricultural Society, held at the office of Judge Sleeper, in Kalamazoo, on Saturday, the 9th day of September, A. D. 1854, present,

John Millham, *President*,

John Sleeper, *Treasurer*,

A. D. Allen, *Secretary*,

A. Y. Moore and F. W. Curtenius, *Executive Com.*

On motion,

Resolved, That George Rix be appointed to act as Marshal at the next annual fair.

On motion,

Resolved, That John Sleeper be appointed a committee to raise $100 from the citizens of Kalamazoo.

On motion,

Resolved, That the matter of allowing some person the privilege of the fair ground, during the next annual fair, to sell refreshments, be referred to A. Thomas and S. S. Cobb.

On motion,

Resolved, That John Sleeper, John Millham and F. W. Curtenius, be appointed a committee to superintend the repairing the buildings, building fences, and generally to prepare the ground for the holding the next annual fair.

Adjourned without day.

THE NINTH ANNUAL FAIR OF THE KALAMAZOO COUNTY AGRICULTURAL SOCIETY,

Was held at the village of Kalamazoo on Tuesday, Wednesday and Thursday, the 3d, 4th and 5th days of October, A. D. 1854.

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The Society was ably addressed by the Hon. Charles E. Stuart, and after the address the following named persons were elected officers of the Society for the ensuing year, to wit.:

President.—Fletcher Ransom.

Treasurer.—Hiram Arnold.

Recording Secretary.—Amos D. Allen.

Executive Committee.—Wm. Price, M. Heydenburgh, Eli R. Miller, Jerome T. Cobb, H. Dale Adams.

Vice Presidents.— ——Cobb, Portage; J. Tainter, Kalamazoo; M. Freeman, Schoolcraft; Gould Richardson, Pavillion; Ransom Gardner, Waukeshma; Bradley S. Williams, Brady; Wm. Sprague, Texas; —— Latta, Oshtemo; —— Tallman, Alamo; Barney Earl, Cooper; G. E. Reed, Richland; Dr. Hawley, Ross; Orra Bush, Charleston; E. M. Clapp, Comstock; G. W. Lovell, Climax; Delamon Duncan, Prairie Ronde.

The following are the reports of the several committees, and a list of premiums that were awarded, to wit.:

The committee on horses would respectfully submit the following report of the business presented to them, together with the premiums as awarded:

Best stallion for draught, 1st premium,.....K. W. Henry.
2d best " " 2d " .....J. Quick.
Best " for all work, 1st " .....J. D. Blood.
2d best " " 2d " .....S. R. Balch.
Best blood stallion, 1st prem.,.....A. Armstrong.
" 3 years old horse colt, 1st prem.,.....J. M. Cross.
2d best 3 years old horse colt, 2d prem.,.....J. A. Calkins.
Best 2 years old horse colt, 1st prem.,.....Jas. Eastland.
2d best 2 years old horse colt, 2d prem.,.....S. Vickery.
Best yearling horse colt, 1st prem.,.....Wm. Beckwith.
2d best yearling horse colt, 2d prem.,.....Hiram Ward.
Best brood mare and colt, 1st prem.,.....E. Williams.
2d best brood mare and colt, 2d prem.,.....H. Nesbit.
3d best brood mare and colt, 3d prem.,.....E. S. Knapp.
Best 3 years old mare colt, 1st prem.,.....J. D. Smith.
2d best 3 years old mare colt, 2d prem.,.....A. McCall.
Best 2 years old mare colt, 1st prem.,.....S. L. Wood.

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Best yearling mare colt, 1st prem., ... J. Cox.
2d best yearling 2d prem., ... M. M. Thayer.
Best single horse, 1st prem., ... Kidder & G.
2d best single horse, 2d prem., ... P. S. Wait.
Best pair matched horses, ... D. B. Smith.

In presenting the foregoing report, your commitee are happy to remark the evident improvement which is being made in this important and profitable branch of the stock-raising business, and they are confident in believing that no county fair in the State, will present the same number of as fine yearling colts, and brood mares and colts, as has been offered for their inspection at this time. The horses offered in single and double harness, were many of them, good animals and a credit to the owners, but they were not *all* well trained, or of as high a grade as we hope to see grace the grounds in future. The materials are among us, and a proper spirit of emulation will bring them forward. Attention should also be drawn to a very fine pair of horses owned by Mr. Sparks, of Oshtemo, and decidedly the best drivers on the ground, but your committee feel bound to award the premium elsewhere, as they were not properly matched.

J. PARKER,
J. BUCKHART,
—— PHILLIPS,
Committee.

The committee on native and grade cattle submit the following report:

Best bull over 3 years old,	T. J. Chaffee,	$4 00
2d best bull over 3 "	Fletcher Ransom,	3 00
Best " 1 "	Otis Pitts,	3 00
2d best " 1 "	J. P. Warner,	2 00
Best bull calf,	H. Arnold,	2 00
2d best "	Fletcher Ransom,	1 00
Best cow 4 years old,	A. Y. Moore,	4 00
2d best cow 4 "	H. & F. Heydenburgh,	3 00
3d " 4 "	H. Arnold,	2 00

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Best cow 3 years old, D. J. Smith,	$4 00
2d " 3 " S. R. Balder,	3 00
3d " 3 " Aaron Eames,	2 00
Best heifer 2 " D. J. Smith,	3 00
2d " 2 " Ja's Taylor,	2 00
Best yearling heifer, John Millham,	2 00
2d best " D. J. Smith,	1 00
Best heifer calf, C. Sweetland,	2 00
" yoke working oxen, D. J. Smith,	4 00
2d best yoke " Otis Pitts,	3 00
3d " " A. C. Munsell,	2 00
Best 3 years old steers, John Millham,	3 00
2d best 3 " " J. W. Lee,	2 00
Best 2 " " Johnson Rix,	2 00
" 1 " " Barney Earl,	2 00
" fat ox, Richard Travis,	3 00

E. T. LOVELL,
WM. BAIR,
ISAAC COX,
Committee.

The committee on Durham and Devon cattle respectfully report that after carefully examining all the entries made for premiums, they award as follows:

Best Devon bull, H. W. Peck,	$5 00
" " 1 year old, F. Ransom,	2 00
" Devon bull calf, F. Ransom,	3 00
" " cow, Wm. Sprague,	5 00
2d best Devon cow, Wm. Sprague,	3 00
Best " heifer, 2 years old, F. Ransom,	3 00
" " " calf, F. Ransom,	3 00
" " yearling heifer, F. Ransom,	3 00
" Durham bull, Hiram Arnold,	5 00
2d best " J. Millham,	3 00
Best Durham cow, A. Y. Moore,	5 00
2d best " H. Arnold,	3 00

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Best Durham yearling heifer, J. Millham,..... $3 00

Owing to the severe rains during the first two days of the fair, few entries of blood cattle were made, and little discretion, therefore, left your committee. Indeed, in most cases there was no competition. The committee do not feel at liberty to close the report without speaking in high terms of commendation of Isaac Cox's Durham bull, also the Devon bull Wallace, owned by W. H. Sprague, both very fine animals, but having received first premiums the year before, were excluded from competition.

SAMUEL CLARK,
Chairman of Committee.

—

The committee on sheep beg leave to report that they have examined with pleasure the several grades which have been entered for exhibition, and have decided to award premiums as follows:

Enos T. Lovell,	6 Spanish ewes,	1st premium,	$4 00
E. T. Lovell,	1 " buck,	"	5 00
"	1 " "	2nd premium,	4 00
Ja's Taylor,	1 long wool "	1st "	4 00
"	1 " "	2d "	3 00
"	6 ewe lambs,		4 00
A. B. Brown,	best Spanish and French buck,	1st premium,	5 00
"	" "	2d "	3 00
Benj. Drake,	1 " buck,	2d premium,	3 00
O. C. Hill,	best yearling "	1st "	3 00
E. Durkee,	2d best " "		2 00

Your committee further report that they have found but little difficulty in determining who were entitled to the above premiums, as the number entered was quite limited, and the different qualities easily distinguished.

SAMUEL CROOKS,
JOHN F. GILKEY,
Committee.

—

Your Committee on Manufactured Articles beg leave respectfully to report, that the only article manufactured in the county having compe-

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tition was Boots and Shoes, and we awarded the first premium of $1 to Ira Burdick. There was a great variety of articles manufactured in the county entered for premiums, but there being no competition we were debarred from awarding them premiums, but recommend liberal discretionary premiums to the following:

To Crittenden & Kidder for a lot of splendid carriages; to E. Warren, on sulky and steel shovel plow; to J. L. Read on specimen of cabinet ware; to Kidder & Brown on some fine specimens of harness; to Potter, Gale & Parsons for specimens of tin ware and cooking stove.

There were a great variety of manufactured articles exhibited made out of the county, which attracted the favorable attention of your committee, among which were a stalk and straw cutter, and a great variety of cooking and parlor stoves by Potter, Gale & Parsons: also every variety of stove by Walker & Sanger; also by W. G. Dewing fine specimens of stoves; also a fine specimen of machinery and iron finishing, by Burtt & Son; also to specimen of dentistry by P. S. Grimes; also to a great variety of agricultural implements too numerous to mention. But your committee cannot close this report without again calling the favorable attention, not only of this Society, but of the public, to the carriages of Crittenden & Kidder, and also to the silver-plated single harness of Kidder & Brown.

A. CAMERON,
B. HOGEBOOM,
T. PAIGE,
Committee.

—

FRUIT.

The Committee on Fruit have had submitted to their inspection a choice variety of the products of the orchard, entirely sufficient to demonstrate that the county of Kalamazoo, in presenting specimens of the apple, pear, peach, grape, nectarine and quince, is not excelled by any portion of the United States.

In viewing the quantity and quality of fruit on exhibition, the committee are satisfied that the list of premiums offered by the Society is entirely too limited, and they would respectfully recommend that a dis-

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tinction should be made between specimens presented by nursery men and those exhibited by amateurs.

Samuel Johnson, best 6 varieties winter apples,		$2 00
D. McKee,	" " fall "	2 00
H. Dale Adams,	" " pears,	2 00
A. C. Munsell,	" " peaches,	2 00
R. E. Cocks, 12 varieties quinces,		2 00
Aaron Eames, 12 bunches grapes,		2 00
D. McKee, greatest variety of apples,		2 00

Committee recommend discretionary premiums as follows:

G. W. Andrews, variety peaches,		1 50
Augustus Buel,	" nectarines,	1 50
Samuel Johnson, fruit trees exhibited,		2 00
Mrs. L. H. Trask, variety quinces,		1 50

H. G. WELLS,
E. R. MILLER,
Committee.

—

The Committee on Needle Work submit the following report:

Mrs. D. G. Kendall, best coverlet,		$2 00
Miss E. B. Cornelius, needle work,		50
Mrs. F. G. D. Traver,	" "	75
Mrs. E. R. Miller, best crochet work,		50
Miss D. C. Bulkley, best worked cape,		1 00
Mrs. S. Phillips, best ottoman cover,		1 00
Miss Blood, best cushions,		50
Miss E. Arnold, specimen needle work,		50

W. C. DENISON,
J. SILL,
Committee.

—

The committee on Poultry have attended to the duty assigned them, and would report as follows:

The committee find on examining the coops, that some of those

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entered were evidently of mixed blood. They recommend the following as worthy:

Lewis Sleeper, best Moscovy ducks,	$1 00
A. C. Balch, coop Brahma Pootras,	1 00
John Newell, best pair ducks,	1 00
E. Durkee, best coop mixed fowls,	1 00
Augustus Buell, best geese,	1 00

All of which is respectfully submitted.

W. L. PAYSON,
A. T. PROUTY,
Committee.

—

The committee on Household Articles, respectfully report that in their opinion the following premiums should be awarded:

W. E. Bellows, best cheese, 20 lbs.,	$2 00
Mary E. Heydenbook, 2d best do.,	1 00
C. T. Clark, best butter, 25 lbs.,	2 00
Mrs. M. Heydenbook, 2d best do.,	1 00
Theresa Stone, best rag carpet,	2 00
Mrs. E. Lewis, 2d "	1 00
H. Palmer, best woolen shawl,	1 00
Mrs. A. C. Munsell, best pair mittens,	50
Miss J. M. Burt, infant's socks,	75

DISCRETIONARY PREMIUMS.

Theresa Stone, bed spread,	$0 75
Hiram Denison, satchel,	50
H. Palmer, bed spread,	1 00
D. Lawrence, 1 pair lamp mats,	50
Mrs. M. Kinsley, best 3 loaves bread,	1 00

JAS. B. CORNELL,
Chairman.

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The committee on Vegetables submit the following report:

Best 18 scarcity beets,	W. E. Trowbridge,	$0 50
" 7 white sugar beets,	"	50
" 18 carrots,	"	50
" 12 parsneps,	"	50
" 12 radishes,	"	50
" 9 cabbages,	"	50
" 6 winter squashes,	"	50
" peck tomatoes,	"	50
" 12 blood beets,	Charles R. Miller,	50
" 6 citron,	"	50
" 1 winter squash,	"	50
" ½ bushel potatoes,	C. R. Hurd,	50
" " seed corn,	S. Johnson,	50
" bag seed beans,	Moses Kingsley,	50
" 4 varieties cabbages,	C. F. Janasch,	50

AARON EAMES,
WM. SPRAGUE,
S. R. RANSOM,
Committee.

—

The committee on swine report as follows:

Best sow and pigs,	Arad C. Balch,	$2 00
2d best sow and pigs,	Augustus Buell,	2 00

But few entries to compete for the premiums on swine were made, consequently the committee have awarded the premiums according to the merits of the animals entered.

F. C. WOODWARD,
IRA BURDICK,
Committee.

—

On flowers the committee report as follows;

Best and greatest variety of flowers,		$3 00
2d " " "		2 00
Best collection of house plants,		3 00

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DISCRETIONARY PREMIUMS.

Two oil paintings,	$1 00
Two vases wax flowers,	1 00
One case hair flowers,	1 00
One vase artificial flowers,	1 00

A. H. HOWARD,
M. WILSON,
E. A. HOWARD,
Committee.

AMOS D. ALLEN, *Sec'y.*

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KENT COUNTY.

J. C. HOLMES, *Sec'y. of the Mich. State Agricultural Society:*

The Kent County Agricultural and Horticultural Society held its annual fair, for the year 1854, on the 5th and 6th days of October. The weather was fine and the attendance large. The show of animals and articles was quite creditable to the County. Better specimens of fruit could hardly be desired. Every thing indicated progress and improvement. It seemed that the people came together because they could not very well stay at home. The occasion was one of interest to all, and no doubt of much benefit to many.

The Executive Committee for the ensuing year, have given the subject of the next annual fair their early attention, and are determined to make the occasion one that will tell on the future of the Agricultural and Horticultural interests of Grand River Valley. And they hope to make a report for the year 1855, that would do credit to the oldest settled county in the State.

As requested, I send you a brief history of Kent County, with a description of its soil, timber, &c., for which I am indebted to John Ball, Esq., of the city of Grand Rapids, one of the early settlers of the County.

On the condition of Agriculture we can report progress—individual enterprise has done and will do much. But it is to associated effort, to our Agricultural Societies and Annual Fairs, that we must look for the greatest good to our agricultural interests.

SLUMAN S. BAILEY, *Sec'y.*

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Kent county comprises, by the United States survey, townships five, six, seven, eight, nine, and ten north, and ranges nine, ten, eleven, and twelve west. The Grand river has a course of about 40 miles through it, and receives within it some of its principal branches, the Thornapple, Flat, and Rouge rivers, and a great number of smaller streams, which with the numerous springs well water the county for the purposes of navigation, power, and agriculture.

The surface of this county is mostly undulating, though somewhat broken in places, mostly near the Grand river and other streams, and some small portions level. It comprises a great variety of soil, from the light sand to the heavy marl clay, and rich bottom lands. The county is about equally divided between the openings and timbered lands. The prevailing soil of the timbered lands is a sandy loam, very feasible and productive, and well fitted for every variety of crop usually produced in the latitude of forty-three. In some parts of the timbered land clay prevails, but not of that terraceous kind usually or often found in the beech and maple land; where pine is the prevailing timber the soil is often light, still of a warm, productive quality.

Of the openings, the greater portion is of the usual white oak kind, the soil of a sandy quality tending to loam, and sometimes marly, found to be the first quality of land for wheat.

There are large tracts of what is known as timbered openings, with a heavy growth of oak timber and a strong soil tending to clay, and tracts also of very light sandy soil, but even this from a large admixture of lime, proves more productive than its appearance would indicate, and considering its great feasibility and the abundance of fertilizing materials at hand, proves profitable for cultivation. There are also some small tracts of burr oak openings, with their usually fertile soil, but no prairies.

As to the wet lands, marshes, and swamps, they are all susceptible of easy drainage, and will prove as valuable as the average of the other lands, and to be brought under improvement at as little labor. In this respect, this and the counties above on the Grand river differ much from some other portions of the State.

There is found in all parts of the county, not only an abundance of water for farming, as well as other purposes, but a great variety of timber, not only for fuel, fencing and other objects connected with agricul-

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ture and building, but also black walnut, cherry, maple, &c., for cabinet ware, ash, oak, and maple for reapers and cars, a large amount of which timber as well as pine has been manufactured and shipped to Illinois and Wisconsin, and some to the Hudson.

There is a misapprehension with many as to the climate of the Grand River valley. It is spoken of as the north part of the State, whereas Grand Rapids is but 85 miles north of the north line of Indiana, while it is 204 miles south of Mackinaw, to say nothing of the upper peninsula. This valley is in the latitude of forty three, the same as Buffalo, Rochester, Utica, Saratoga, and the south part of Vermont and New-Hampshire, with a climate far more mild than New-York and those States. Besides, the average of Kent county is but 40 miles from Lake Michigan, the influence of which does much to temper down the cold of winter and bring on a supply of snow, there being usually from six to twelve weeks sleighing without a great depth of snow or severe cold.

Lake Michigan, never freezing far from the shores, very much moderates the cold prevailing westerly winds of winter, for in extreme cold weather, the thermometer generally indicates ten degrees greater cold in Wisconsin and Northern Illinois, even in Chicago, than at Grand Rapids.

The geology and mineralogy of the county should not be omitted, being of a character much to enhance the value of the land for agriculture. Within some two miles of Grand Rapids, there are now opened five plaster quarries, and an abundance is manufactured to supply not only home consumption, but a large quantity for exportation to other parts of the State and over the lake, and the material is inexhaustible in amount. Overlaying this, and the out crop of which forms the Rapids of Grand River, is the lime in unlimited quantity also, fitted for building stone as well as for mortar. This marl, and peat or muck is found on almost every section of land.

So much for the natural position and advantages of Kent county. Still another, and the greatest should not be omitted to be mentioned, though it might naturally be inferred, that is, that the almost entire absence of stagnant water, unless produced by artificial means, the rolling face of the country, and the brisk and clear streams and pure springs, conduce to form a pure and salubrious atmosphere.

The first white residents in Kent county were Indian traders, mis-

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sionaries and agents—and as early as the year 1832, a few persons came in from Detroit and other places, engaged in business, principally lumbering.

In 1833, a number of families came into the Grand River Valley, from the Mohawk, and settled in Ionia and this county, and a few more the following year, and in 1835 were commenced the first improvements on the Grand River, at Grand Rapids, which brought in a number of mechanics and laborers, who afterwards became permanent residents. At the end of this year, the population amounted to only about three hundred.

But at the close of the next year, 1836, the great and last year of speculation, the population was probably quadrupled. People came in from all the northern parts of the Union for speculation, merchandising, lumbering, and to engage in professional and mechanical business, in any and everything apparently, in preference to farming. A greater number of men, and ten times the capital were employed in importing provisions, principally by the lakes, from Ohio and New York, than in raising any thing at home. And there was sometimes a better supply of luxuries than of the mere substantial articles of subsistence.

All were in good spirits and high anticipations; and at times, during this and the prior years, the settlers had to rely mainly on the Indians and the natural resources of the country for food. They tell of living for weeks on sturgeon. There was not a grist mill within sixty miles, and had there been one, there was little grain to grind. Prices were very high, flour being from ten to twenty dollars per barrel, and pork from thirty to forty, potatoes two, butter fifty cents per pound, and other things in proportion, when they could be got, which was far from always. Still, while the money lasted, this was much less thought of than during the next year. When the banks exploded, the settlers in this remote valley, a hundred miles from any settlement, except the small one on the Kalamazoo river, felt the great inconvenience of their detached position, without anything on hand but some village lots and a few unimproved acres.

The census of 1837 showed the population of the county to be about 2,000, to which the succeeding years added but few, for, in 1840 the census increases the number to only about 2,600.

These were gloomy years for Kent county. The merchants failed.

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the farmers were ruined from paying enormous prices for provisions and mechanical labor to commence their improvements. By the time they had raised crops, if they had anything to spare, the same would hardly pay for the seed, so sudden was the change; and mechanics could find no employment, unless on condition of taking pay in village lots, or promises not to be fulfilled; and some of the gentlemen of leisure left the land.

During the succeeding years of 1841 and 1842, there was but little increase of emigration or apparent improvement in the circumstances of those here. Stock had been brought in from Ohio and Indiana, but the farmers had often to supply themselves on credit. There were no sheep, but there being a succession of mild winters, hogs had become quite numerous and cheap. But the severe winter of 1843 swept three-fourths of them away, with some of the cattle; snow lay deep on the ground from the eighteenth day of November till the same date in the following April. Residents will long remember that gloomy winter. They hoped for spring at the usual time, but, instead of open fields, March brought its four feet of snow, and a greater degree of cold than was ever known in any month before or since in the west. The river broke up on the 11th of April, and May opened with pleasant weather, followed by a fruitful season. Still, that season hardly made up for the losses of the winter.

That part of the county south of the Grand river, comprising about seven out of the twenty-four townships in the county, was bought from the Indians at the Chicago treaty, together with all the rest of western Michigan to the south of it, and was brought into market at the same time; still, from its remote position, one-third of this was unsold at the glow of the speculation of 1836.

The part of the county north of the river, and all of the north part of the Peninsula was purchased from the Indians at the Washington Treaty, in the spring of 1836, and was first brought into market in August, 1839, after all land speculation had passed.

Settlers had gone on to the north side of the river as pre-emptioners, before the land came into market; but, from the hardness of the times, they, as well as new comers purchased but slowly, till, under the grant of Congress of one half million of acres to the State for Internal Im-

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provements, the State in 1842, selected within this county about 150,000 acres, and in this Valley nearly three-fourths of the whole grant.

A Small portion of these lands were pine, but the most of them were first rate farming land, the selections being made with reference to their location as well as the quality of soil. The settlers objected to these falling into the hands of the State, for fear they would be held at a high price, or kept from sale, so as to impede settlement. But the result proved the reverse, for they were put into market in July of the next year, 1843, at the nominal price of $1 25, same as the Government price, payable in State dues, Land Warrants, which, at the time, and during the two following years, when most of these lands were sold, could be purchased at from forty to seventy cents on the dollar, bringing the lands to the purchaser at about one half the nominal price. When this chance became known, it directed many emigrants, who were bound with the general current to Illinois and Wisconsin, to this and the adjoining counties, when the country more than met their expectations, and they all became purchasers and settled. These have proved the men just fitted for the country, being mostly from Ohio or Western New York, raised in the woods and accustomed to its advantages. And though their means were generally very limited, they purchased and lived within their means and kept unusually free from debt. This prudence, with industry and improvement of the times, has enabled them all, or certainly the average, now in 1854, to show an increase to their means of at least one thousand per cent. This may be consided a fair result for eight or ten years' labor.

Better times extended also to the old settlers, so it may be said that 1844 was a new era in the Grand River Valley; and from that time to this general prosperity has prevailed, and there has been a healthy increase in the population; the census of 1845 giving about 6,000, that of 1850, 12,000, and of this year, (1854), 18,000, with a fair prospect of a like or greater ratio of increase in future.

The settlers being mostly from wheat growing States, hope perhaps turned their attention too much to that one crop. For hardly a year has there been a supply of the coarse grains to meet the demand. This is principally owing to the extent of the lumbering interest here and to the north. Nor has there been the attention paid to the dairy business, that might seem profitable, there not always being made a full

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supply of butter, and no cheese of any amount, so that this latter article is as high here as in any other market. There has been a great lack of fruit, but of late much attention has been given to it, and exhibitions show that this county can equal any portion of the State in that line.

Much interest has lately been taken in the improvement of stock by the introduction of improved breeds, and the original inferior cattle from the south have much improved in this more healthy county. No large flocks of sheep have yet been introduced, still they are now rapidly increasing, and our county seems particularly well adapted to them.

As the farmers become better able, they show a very general ambition to inform themselves in all things pertaining to their business; and every year shows a great improvement in the quantity and quality of crops and appearance of all kinds of stock. And not less regard is paid to the elegance and convenience of buildings, and no county is better supplied with materials for that purpose. Lime, sand, clay, and pine timber are all in great abundance, and these have been turned to account for the convenience of man and animals.

And last, though by no means least, few communities have enjoyed so uniform good health as the inhabitants of Kent county from its first settlement.

LIST OF PREMIUMS

Awarded at the Sixth Annual Fair of the Kent County Agricultural and Horticultural Society, held at the city of Grand Rapids, on Thursday and Friday, the 5th and 6th days of October, A. D. 1854:

HORSES.

Best stallion over 4 years old, J. T. Vantassel,	$5 00
2d " " C. C. Norton,	3 00
Best colt over 1 and under 2 years, C. C. Norton,	2 00
Best brood mare, H. Soules,	3 00
2d " David Meach,	1 50
Best sucking colt, H. Soules,	1 50
Best span matched horses, C. Thompson,	2 00
2d " " H. K. Rose,	1 00
Best single gelding or mare, B. Luce,	1 00

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DURHAM CATTLE.

Best bull 2 years old and over, Hiram Rhodes,	$3 00
2d best " " Porter Reed,	2 00
Best yearling bull, Amos Hill,	1 00
" heifer, D. W. Watson,	1 00
Best heifer calf, Amos Hill,	1 00

DEVON CATTLE.

Best bull 2 years old and over, Andrew Loomis,	$3 00
Best cow, W. S. H. Welton,	2 00
2d " "	1 00
Best yearling heifer, Amos Hill,	1 00
" heifer calf, W. S. H. Welton,	1 00
" bull " W. S. H. Welton,	1 00

GRADE CATTLE.

Best bull 2 years old, D. C. McVean,	$3 00
Best yearling bull, M. Roys,	1 00
Best milch cow, Amos Hill,	2 00
2d best " D. W. Watson,	1 00
Best yearling heifer, J. F. Chubb,	1 00
Best heifer calf, Porter Reed,	1 00
Best bull calf, David Meach,	1 00

NATIVE CATTLE.

Best yoke working oxen, Loren Sallsbury,	$1 50
2d " " Geo. M. Barker,	1 00
Best pair steers, Madison Cook,	1 00
Best native cow, S. R. Beals,	1 00

SHEEP.

Best Merino buck, Aaron Brewer,	$2 00
2d best " Barney Burton,	1 50
Best Leicester buck, Nathan Earle,	2 00
Best pen Leicester ewes, "	2 00
Best " lambs, "	1 00
Best pen Merino lambs, Aaron Brewer,	1 00
Best " ewes, Aaron Brewer,	2 00

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POULTRY.

Best coop White Shanghai fowls, Wm. I. Blakely.

Best coop Brahma Pootra, W. S. H. Welton,..... $1 00

Best coop any other breed, Thales Dean,..... 1 00

In awarding the above premiums, the committee were governed by *purity of blood.* There were a large number of very fine fowls of mixed breeds on exhibition, which were worthy of notice. The coop of White Shanghai fowls, exhibited by Wm. I. Blakely, received no premium because not entered on the first day.

SWINE.

Best boar, S. S. Bailey,..... $1 00

2d best boar, Samuel Cooley,..... 75

Best sow, S. S. Bailey,..... 1 00

FARM IMPLEMENTS.

Best plow for general use, J. F. Chubb,..... 1 00

" fanning mill, Renwick & Brother,..... 1 50

The committee would further report that there were various articles of foreign manufacture, worthy of notice, presented by J. F. Chubb, viz: one harrow, sub-soil plow, clover mill, &c. Also, one clover sower belonging to W. S. H. Welton.

WAGONS, CARRIAGES, COOPER'S AND JOINER'S TOOLS, &C.

Best one horse buggy, G. C. & J. O. Fitch,..... $2 00

" lumber wagon, G. C. & J. O. Fitch,..... 2 00

" specimen hubs, L. R. Atwater,..... 50

" " brick, Seymour & Baldwin,..... 50

" rifle, S. & G. R. Pierce,..... 1 00

Committee would recommend as worthy of notice one iron X wagon, belonging to F. Osterine. Also, one wooden X wagon belonging to Edmonson & Emmer. Also one dray belonging to Andrew C. Wright. Also, a specimen of staves, dressed.

HARNESS, BOOTS, SHOES AND LEATHER.

Best calf skin, Perkins, Boyer & Co.,..... $0 50

" side upper leather, Perkins, Boyer & Co.,..... 50

" " sole " " " " 50

No boots or shoes of domestic mannfacture were offered. Commit-

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tee would recommend as worthy of notice, a fine lot of boots and shoes owned by Coggeshall of eastern manufacture.

CABINET WARE AND JOINER WORK.

Best bedstead, Wm. Haldane,	$0 50
" 1 panel front door, L. E. Clark,	50
" window blind, Daniel Kelly,	50
" window sash, " "	25

DOMESTIC MANUFACTURES AND DAIRY PRODUCTS.

Best fancy bed spread, Mrs. J. Lyman,	$0 50
" pair woolen stockings, R. S. Parks,	25
" " buckskin mittens, Jacob Williams,	25
" " " gloves, Jacob Williams,	25
" butter, Mrs. H. Howell,	50
2d best butter, Mrs. Thales Dean,	25
Best honey, Thales Dean,	50
" baker's bread, Fulton, Seymour & Co.,	50
" domestic bread, Mrs. Geo. M. Barker,	50
" crackers, Fulton, Seymour & Co.,	50
" barrel flour, H. Rogers,	50
" rag carpet, John Colton,	50

The committee would mention one barrel of flour entered by A. X. Cary, of superior quality, but not entered according to the rules, could not compete for a premium.

They would also make mention of a patent machine for paring apples, exhibited by W. S. H. Welton, which they would recommend to the notice of farmers as possessing merit.

FANCY ARTICLES.

Best daguerreotype, O. W. Horton,	$ 50
" crayon painting, Miss A. H. Henry,	50
" ornamental needle work, Miss M. A. Littlefield,	50
" floral design in wax, fine specimen, M. E. Parley,	50
" architectural drafting, Nichols, Naysmith & Co.,	50
" oil painting, very fine, M. F. Harting,	50
" specimen of marbling, Devendorf & Porter,	50
" specimen of English and light oak graining, Devendorf & Porter,	50

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Best basket of fruit in wax, Miss A. H. Henry,..... $0 50

The committee would also make gratifying mention of a case of elegantly bound books from the new bookstore of John Terhune, Jr., No. 2 Rathbone Building.

Also, several landscapes and portraits from the studio of Mr. Harting. Also, a very handsome pencil drawing of the Indiana Lunatic Asylum, by Miss Elizabeth E. Pierce, not entered for premium.

FRUITS, VEGETABLES, &C.

Greatest variety of apples, Hiram Rhodes,.....	$ 50
Best peck fall apples, Geo. M. Barker,.....	50
2d best fall apples, D. S. Wooster,.....	25
Best doz. quinces, Smith Bailey,.....	50
2d best " John Colton,.....	25
Best specimen of grapes, G. W. Dickinson, ...	50
" peck potatoes, L. R. Atwater,.....	25
" " onions, Geo. M. Barker,.....	25
" " seed wheat, John Naysmith, Jr.,.....	75
" " seed corn, D. S. Wooster,.....	50
" squash, Porter Reed,.....	25
" pumpkin, H. Holt,.....	25
" beets, Joseph Escott,.....	25
" cabbage, Joseph Escott,.....	25

Benj. T. Pierce exhibited a superior pumpkin, which being brought in on the second day was excluded from competition. Mr. Atwater also presented a fine specimen of sweet potatoes. The committee recommend that a premium of fifty cents be awarded him therefor.

At the annual meeting the following officers were elected for the ensuing year:

For President—W. S. H. Welton.

For Secretary—Sluman S. Bailey.

Executive Commitee—J. F. Chubb, —— Scranton, T. E. Wetmore, L. R. Atwater, H. K. Rose.

Vice Presidents—G. M. Barker, Walker; Hiram Rhodes, Ada; Wm. R. Davis, ——; Osman Reed, Grand Rapids; James Dockeray, Cannon; G. Steel, Gratton; H. H. Holt, Cascade; Almon Thompson, Courtland; Henry Hall, Plainfield; J. E. Nash, Sparta; Hiram Allen,

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Paris; Morgan Lyon, Vergennes; David Burnett, city of Grand Rapids; S. R. Beals, Wyoming; Aaron Brewer, Gaines; D. C. McVean, Bowne; P. D. McNorton, Caledonia; John Colton, Alpine; C. W. Beckwith, Lowell; Smith Lapham, Algoma.

SLUMAN S. BAILEY,
Secretary.

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LENAWEE COUNTY.

To J. C. Holmes, Esq., *Sec'y Mich. State Agricultural Society:*

The sixth annual fair of this society was held on the 4th and 5th days of October, at the village of Hudson, sixteen miles southwest of the city of Adrian, and within about a mile of the west line of the county. The first day of the fair was unpropitious, (cold and stormy,) the second day pleasant. The address was delivered on the second day of the fair by Warren Isham, of Detroit, and was both able and practical and well adapted to the occasion. The gathering of the people was not as numerous as at the fairs for the two or three past years. The receipts for membership and admission tickets to the fair was $398 13 only; being $284 75 less than last year, owing undoubtedly to the fair being held at one side of the county—and after paying the premiums awarded and the current expenses, there will be no funds in the treasury, of any amount, although the society will be out of debt.

The show of articles in quantity and quality was not equal to the past two years, with the exception of fruit and sheep, which were superior in quality to any previous years. The wheat in this county this year has not been over one-fourth of a crop. This is owing, it is believed by farmers with whom I have conversed, to the past open winter, and the consequent freezing and thawing, which made it late in coming on in the spring and just in time to receive that pest, the weevil.

The corn and oat crop have been a full average—the potato crop an average as to quantity, but inferior as to quality, owing undoubtedly to the extreme drouth the fore part of the summer, and their almost entire and rapid growth after the commencement of wet weather.

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This society in connection with the Horticultural Society of the city of Adrian has continued to hold weekly meetings every Friday in the afternoon during the season for the exhibition of horticultural productions, and although not so great an interest in these meetings was manifested by the farmers generally as was desirable and as is believed would have been beneficial to them, still the meetings were usually well attended, and great interest manifested by those who did attend.

The following is an extract from the report of a committee of the Horticultural Society of the city of Adrian recently made to said society by B. F. Strong, which will show somewhat the condition and quality of fruit grown in this county and exhibited at our weekly meetings:

"The soil and climate of southern Michigan being favorable to the growth of trees and shrubs bearing fruit, it becomes the duty of every one, and no less of your committee, to recommend such varieties as succeed best in this locality.

"The past season has been one of severe drouth, and consequently unfavorable for the exhibition of some of the finer varieties of fruit, notwithstanding more varieties of fine specimens have been exhibited than in any year since your organization. Cherries ripening before the drouth were very fine; more than twenty varieties were exhibited. Among those claiming most attention were the early purple guigue, May bigarreau, black tartarian, black eagle, yellow Spanish, Downer's late, Gov. Wood, Elton, and large heart-shaped bigarreau. Among the many currants exhibited, none were as good as the red and white Dutch, and black Naples. The best gooseberries exhibited were the brown bob,-roaring lion, white Smith, red Warrington, and Houghton's seedling. Until some more effecual remedy for the destruction of the curculio is ascertained, plums and apricots should not be raised but by those who have the time, and are willing to bestow proper attention to their cultivation. Most of the plum trees in this vicinity have become a public nuisance. No peaches have been exhibited worthy of notice. The Catawba and Isabella grapes are all that have been exhibited worthy of notice. Most varieties of standard apples are grown in this vicinity. Williams' favorite, red astracan, Hawley, waxon, northern spy and Newtown pippin, are varieties that should be extensively cultivated. Standard pears have succeeded well in this locality, and where there is a failure, it may be attributed to unhealthy stock and im-

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proper treatment. Pears on quince are not recommended but to those who are willing to give them proper care and attention. But few varieties of foreign grapes under glass, and native grapes grown upon brick walls claim your attention. Many cultivators attempt the cultivation of many varieties without regard to quality. Deep trenching, and a thorough pulverising the soil before planting, and mulching after planting, are very essential.

"Your committee would recommend extreme caution in the purchase of fruit trees of peddlers and hawkers, who have no reputation to lose, and only want your money. We believe trees grown near where they are transplanted are less liable to fail by drouth, blight, and other maladies they are subject to, than they are brought from long distances. By a proper selection of varieties, the commercial interest in fruit growing may be second to no other enterprise in this part of the State."

The following is a copy of the report of the committee on vegetables made by Dr. D. K. Underwood, at the same time as the above.

The committee on vegetables would report that a majority of their number have attended the weekly exhibitions of the society with punctuality, and regret to be obliged to state that their office has been a *mere sinecure;* while a commendable zeal has been manifested in the pomological department of our society, and considerable attention paid to the cultivation of flowers. *Vegetables* receive from many of our members *very little* attention, and if they *produce* any good ones, no one besides themselves is benefitted as they do not exhibit them. It cannot be necessary for your committee to say anything as to the value and importance of garden vegetables to every family; nor of the necessity of cultivating *only the best varieties.* Those for instance, who have eaten "Champion of England" pears, know there is as great a difference between them and the sorts frequently cultivated, as between the best and poorest varieties of apples or peaches. The same may be said of the Stowell corn; of the best varieties of beans, and of almost all culinary vegetables. How marked the superiority of the large heads of tender ice lettuce, over the tough, leathery article found in many gardens. The radishes introduced within a year or two by this society will readily occur as an illustration of what has been said; of cabbages it may be safely said that half our citizens procure their plants at groceries without knowing or asking what variety they are. Hence so many of

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the long legged, headless kinds are grown instead of the large drumhead, or the short and compact flat Dutch. Many persons who are intelligent on other subjects, seem to be literally "know-nothings" in the business of vegetable gardening. The committee hope for a better state of things, and to see a spirit of enquiry and improvement manifest itself in *this* department of horticulture, which has so much to do in furnishing us our daily food.

The number of entries for premiums at the County Fair, were as follows:

Farms, 2; blood cattle, 25; grade, 17; working oxen and fat cattle, 6; horses, 50; sheep, 22; swine, 1; poultry, 8; seeds and crops, 15; farm implements, 10; domestic manufactures, 53; butter, cheese, honey and garden vegetables, 4, (only). Drawings, paintings, &c., 14; nurseries, gardens and ornamental trees, 5; fruit, 44; flowers and ornamental needle and shell work, 32; plowing match, 4; miscellaneous articles, 13.

A. G. EASTMAN, *Sec'y.*

LIST OF PREMIUMS

Awarded at the Annual Fair of the Lenawee County Agricultural Society, held at the village of Hudson, October 4th and 5th, 1854.

FARMS.

Samuel Rappleye, Ridgeway, best farm,	$10 00
Alanson Woolsey, Madison, 2d "	6 00

BLOOD CATTLE.—DEVON.

S. A. Todd, Madison, bull 4 years old,	$8 00
" " " 3 " "	6 00
" " " calf	2 00
" " cow 7 years old,	4 00
" " heifer 1 "	4 00
" " " calf,	2 00
" " " "	1 00
A. D. Hall, Tecumseh, " 2 years old,	6 00
John Richards, Raisin, cow 4 "	6 00

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DURHAM.

John Richards, Raisin,	bull 4 years old,	$8 00
E. Holloway, Fairfield,	" 3 "	6 00
B. J. Bidwell, Tecumseh,	" 2 "	6 00
D. R. Griffin, Rome,	" 2 "	6 00
D. C. Blair, Franklin,	" 1 "	4 00
" "	calf,	2 00
" "	" cross,	1 00
W. H. Scott, Adrian,	"	1 00

GRADE CATTLE.

J. L. Carlton, Hudson,	bull 4 years old,	$6 00
Wm. Beal, Rollin,	" 5 "	4 00
Hiram Van Akin, Hudson,	native cow 6 years old,	6 00
W. H. Lindenbower,	" " "	4 00
V. W. Underwood, Rollin,	" 3 "	3 00
A. Loomis, Hudson,	" 2 "	4 00
Silas Palmer,	" bull calf,	1 00
A. Loomis,	" heifer calf,	1 00
J. A. W. Hawkins, Hudson,	" 1 year old,	3 00

WORKING OXEN.

W. Baird, Hudson,	1 yoke,	$8 00
Luther Cary, Medina,	"	5 00
A. Loomis, Hudson,	"	4 00
D. Griffin, Rome,	" 3 years old,	5 00
" "	" 2 "	3 00
J. A. W. Hawkins, Hud.	" 3 "	3 00
E. H. Cogswell,	" " 2 "	2 00

HORSES FOR ALL WORK.

B. Gillet, Hudson,	stallion, 5 years old,	$7 00

BLOOD HORSES.

B. J. Bidwell, Tecumseh,	stallion Morgan Bussorah,	$7 00

MARES FOR ALL WORK.

C. Bassett, Madison,	brood mare,	$7 00
Jared Vanfleet, Medina,	"	5 00
S. A. Todd, Madison,	"	3 00

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BLOOD MARES.

Jonathan Livesay, Fairfield, mare 6 years old,		$7 00
G. W. Perry, Medina,	"	5 00

MATCHED HORSES.

N. F. Bradish, Madison, span horses,		$7 00
Gilbert Gage, Dover,	"	5 00
S. C. Baker, Rome, single horse,		3 00
B. Johnson, Hudson,	"	2 00
Ira Buck, Adrian, span fancy horses,		5 00
S. Randolph, Madison, single fancy horses,		3 00
Dr. Owen, Adrian,	" " "	2 00
B. J. Bidwell, Tecumseh, 3 year old stallion,		4 00
W. Abbot, Fairfield, 3	" "	3 00
James S. Kinney, Seneca, 3	" mare,	4 00
S. H. Cogswell, Hudson, 3	" gelding,	4 00
A. L. Downer, Medina, 3	" 1 span,	5 00
S. A. Bailey, Madison, 2	" colt,	3 00
A. Loomis, Hudson, 2	" "	2 00
G. W. Perry, Medina, 1	" "	3 00
A. Perkins, Hudson, 1	" "	2 00

SHEEP AND WOOL.

J. H. Benton, Tecumseh, Merino buck,		$4 00
Walter Wright, Adrian,	"	2 00
Wm. Beal, Rollin,	"	1 00
J. H. Benton, Tecumseh, 5 Merino ewes,		5 00
Wm. Beal, Rollin, 5	"	3 00
J. H. Benton, Tecumseh, 5 Merino lambs,		5 00
" " 5	"	3 00
N. Woodford, Madison, 5 long wool ewes,		5 00
" " 5	" lambs,	5 00

POULTRY.

V. W. Underwood, Rollin, 4 Brahma Pootras,		$1 00
E. H. Pilcher, Adrian, 3 Shanghais,		1 00

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FARM IMPLEMENTS.—CLASS I.

Smith Lane, Hudson,	plow for all work,	$3 00
" " "	stiff soil,	3 00
" " "	light "	3 00
" "	corn cultivator,	2 00

CLASS II.

Bean & Wright, Hudson,	fanning mill,	$2 00
Cha's M. McKenzie & Son, Adrian,	straw cutter,	2 00

DOMESTIC IMPLEMENTS.—CLASS I.

Mrs. L. W. Baker, Wolf Creek,	10 yards domestic plaid,	$2 00
" R. H. Armstrong, Hudson,	1 patch work bed quilt,	2 00
David Curtis, Hudson,	1 patch work bed quilt,	1 00
Mrs. Wm. Baker, Medina,	1 pair woolen gloves,	1 00
Lydia Van Akin, Hudson,	piece diaper,	2 00
Mrs. Calista Beach, "	1 pair woolen mittens,	50
Silas Orcutt, "	" coverlet,	3 00
Mrs. L. A. Stebbins, Dover,	" socks,	75
" Gilbert Gage, "	" stockings,	1 00
" " "	white bread,	50
" " "	mixed yarn,	Diploma.
C. M. Comstock, Hudson,	7 pieces rag carpet,	2 00
Hiram Blowers, "	1 " "	1 00

CLASS II.

R. Bidleman, Adrian,	2 horse carriage harness,	$3 00
" "	1 " "	3 00
John Dwill, Hudson,	pair coarse boots,	1 00
Nelson Davis "	stoga harness,	2 00
S. Eddy, "	½ dozen calf skins,	1 00

CLASS III.

J. R. Smith, Adrian,	melodeon,	$3 00
A. B. Gillespie & Bro., Adrian,	dress coat by man,	2 00
" " "	pants "	1 00
" " "	vest, by woman,	1 00

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CLASS IV.

Irish & Harned, Adrian, 2 horse carriage,	$5 00
Cummings & Smith, Tecumseh, 2 horse carriage,	3 00
" " " 1 "	3 00
" " " 1 "	2 00
" " " best spec. carriage trimming,	1 00
" " " " " painting,	1 00
Davis & Johnson, Hudson, cooking stoves, &c.,	2 00
Wm. Bruce, " horse shoe and nails,	1 00

BUTTER, CHEESE, HONEY AND GARDEN VEGETABLES.

Ezekiel Gallop, Jr., Medina, pail butter,	$3 00
T. H. Bailey, Adrian, lot cheese,	3 00
Ashbul Catlin, Hudson, lot cheese,	2 00
Seth W. Fenton, Madison, ½ bushel seed cord,	50
" " 12 sweet potatoes,	50
E. H. Pilcher, Adrian, 1 doz. tomatoes,	50
Mrs. Kidder, Hudson, lot honey,	2 00

DRAWINGS, PAINTINGS, &C.

E. J. Cadwell, Hudson, 5 cases daguerreotypes,	1 00
Miss Lucy Graves, Medina, best water color painting,	1 00
N. Wilcox, Hudson, specimen penmanship,	1 00
E. H. Church, Hudson, 3 paintings,	Diploma.
Mrs. Calista Beach, Hudson, 3 landscape paintings,	Diploma.
Miss Ann M. Stillwell, Medina, specimen drawing,	Diploma.

NURSERIES, GARDENS AND ORNAMENTAL TREES.

John Tallman, Tecumseh, best ornamental forest trees planted this spring,	$3 00
Samuel Rappleye, Ridgeway, best vegetable and flower garden,	2 00

FLOWERS AND ORNAMENTAL NEEDLE AND SHELL WORK.

B. W. Steer, Adrian, climbing roses,	$1 00
" " perpetual roses,	2 00
Delos Baker, " best boquet exhibited at the fair,	1 00
Mrs. S. A. Eaton, Hudson, table cover,	1 00
B. C. Millholland, " 2 lamp mats,	1 00
Mrs. R. H. Armstrong, Hudson, 1 silk bonnet,	1 00

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Mrs. Sarah E. Daniels, Hudson, 1 embroidered handkerchief, Diploma.
Mrs. S. A. Bois, Hudson, embroidered apron, waist and scarf, .. do
Mrs. L. W. Frazee, Hudson, 2 vases flowers, ... do
D. Pratt, Medina, vase wax flowers, ... do
Mrs. M. A. Harrison, Adrian, paper bonnet, work box and picture frame, ... Diploma.
Phebe J. Cooley, Hudson, tissue flowers, ... do
Alice Piper, Hudson, set bonnet flowers, ... do
Mrs. Ockoboc, " embroidered apron, ... do
Mrs. N. Davis, " artificial flowers, ... do

PLOWING.

Franklin Smith, Hudson, 1st premium, ... $6 00
Gillett, Canandaigua, 2d prem., ... 4 00
M. T. Nickerson, Madison, 3d prem., ... 3 00

FRUIT REPORT.

To the Agricultural and Horticultural Society of Lenawee County:

The committee on fruit respectfully report, that the weekly meetings of the society, have been but sparsely attended, especially by farmers, owing, they believe in part, to erroneous impressions that the horticultural department is a village or city matter, and does not directly concern the farming community. But this is a mistake altogether—inasmuch as the great bulk of fruit must be produced from the farm, and not from the contracted village or city gardens. They would, therefore, particularly invite the attention of farmers to the punctual attendance on those meetings; where they can best learn the different varieties of fruit and their comparative values, both for consumption and market.

Your committee believe that the importance of the fruit crop is not properly appreciated, either by the great mass of the people in general, or by our law-makers in particular. Especially while the taking of articles of trivial value is frequently made a criminal offence, the stealing of any amount of fruit from the orchard is only trespass. In the act for taking the last census for the State, among all the items called for there is no enquiry in regard to fruit—but hold! they do condescend to ask how many barrels of cider have been manufactured! While the total value of the fruit crop in the State holds an important place in the list of products.

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With these few general remarks, the committee proceed to make the following awards—not forgetting to mention the frequently difficult task of deciding between almost equally deserving competitors:

FRUIT.

D. K. Underwood,	Adrian,	cherries,	$3 00
"	"	strawberries,	2 00
"	"	gooseberries,	2 00
"	"	best single variety berries—new Pine strawberry,	2 00
"	"	plums,	3 00
"	"	best single variety Jefferson,	2 00
B. F. Strong,	"	cherries,	2 00
"	"	gooseberries,	1 00
"	"	best single variety—Whitesmith,	1 00
"	"	currants,	1 00
"	"	plums,	2 00
"	"	2d best single variety,	1 00
B. J. Harvey,	Palmyra,	cherries,	1 00
"	"	apples,	2 00
"	"	best single variety—Early Harvest,	1 00
Israel Pennington,	Macon,	"	3 00
Dr. A. Barnard,	Adrian,	" cherries—Eton,	2 00
B. W. Steer,	"	strawberries,	1 00
Wm. Ten Brook,	Fairfield,	apples,	1 00
J. W. Helme,	Adrian,	currants,	1 00
B. F. Strong,	"	best and greatest variety grapes,	3 00
J. H. Osborn,	Macon, 2d	" "	2 00
B. F. Strong,	Adrian,	best single variety—Catawba,	2 00
Wm. Ten Brook,	Fairfield, 2d best	" —Sweet Water,	1 00
Israel Pennington,	Macon,	best and greatest variety pears,	3 00
"	"	2d best " "	2 00
"	"	best summer "	1 00
W. H. Scott,	Adrain, 2d	" " "	2 00
B. J. Harvey,	Palmyra, 3d	" " "	1 00
D. K. Underwood,	Adrian,	best 6 varieties pears,	3 00
B. J. Harvey,	Palmyra, 3d	" "	1 00

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D. K. Underwood, Adrian, best fall pears, ... $1 00
Israel Pennington, Macon, " winter, ... 1 00
—— Converse, Adrian, best single variety early peaches, ... 3 00
Wm. Purchase, Hudson, greatest " late " 1 00
Israel Pennington, Macon, best single " " " 3 00
Delos Baker, Adrian, 2d " 2 00
B. F. Strong, " best Orange quince, ... 2 00
B. J. Harvey, Palmyra, other " 2 00
G. L. Crane, Madison, best and greatest variety of fall and winter apples, ... 3 00
B. J. Harvey, Palmyra, 2d best, ... 2 00
W. H. Scott, Adrian, 3d " 1 00
B. J. Harvey, Palmyra, best 6 varieties winter apples, ... 3 00
Geo. L. Crane, Madison, 2d best, ... 2 00
T. H. Bailey, Adrian, 3d best, ... 1 00
W. H. Scott, " best fall apples, ... 1 00
Jacob Arnold, " " winter " 1 00

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LIVINGSTON COUNTY.

To J. C. HOLMES, ESQ., *Sec'y of the Mich. State Agricultural Society:*

Our Society was established two years ago, under much doubt and anxiety by those who undertook its management, in reference to its pecuniary success—but the success of last year having removed all doubts, the Board of Directors were enabled to prepare for this year's exhibition on a scale suited to the wants of the county, and which gave our citizens ample opportunity to decide how far they appreciated the advantages of an annual fair as an institution with us. The result was a hearty and almost unanimous endorsement of the thing.

Our fair was held on the 3d, 4th and 5th of October last, and though the rain fell in torrents during the whole of the first day, our farmers and mechanics were not deterred from coming up with their stock and articles for exhibition, so that the office was occupied during the entire day in making entries. The number of entries was 566, compared to 303 last year, notwithstanding much valuable stock in remote parts of the county was kept back by the rain.

The fair was conducted after the following order:

Entries for exhibition were made on the first day. At 9 o'clock A. M. on the second day, the show was opened for exhibition, at which time vacancies in viewing committees were filled by the Board of Directors. At 11 o'clock A. M. of the third day, the annual election of officers of the Society took place, as follows: President, Robert Crouse; Secretary, L. K. Hewitt; Treasurer, Geo. W. Lee; Executive Committee, John R. Goodrich, Job Cranson, R. C. Rumsey, P. L. Smith, Ralph Fowler; and a Vice President for each township. At two o'clock on

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the last day, an address was delivered by Col. F. W. Curtenius, of Kalamazoo. Col. Curtenius' address was replete with valuable hints, and well suited to the occasion, but much to the regret of all who heard him, he declined allowing its publication. Immediately after the address, the following premiums were awarded.

It may not be out of place to remark, that amid all our success we were sad, on account of the death of one of the founders and most efficient supporters of our Society, Hon. W. A. Buckland. He returned from the State fair at Detroit, on the Saturday preceding ours, where he had purchased some valuable implements, with which he intended to contribute to the interest of our show, but he died before that event. Mr. Buckland was a man of comprehensive intelligence, thoroughly devoted to the interests and the dignity of agriculture, and his death is a loss to its best interests with us.

LIST OF PREMIUMS AWARDED.

DIVISON A.

CLASS I.—FARMS AND FIELD CROPS.

No.	249.	Alva Preston, best cultivated farm, Stephen's Book of the Farm, and	$6 00
No.	447.	Jacob Fishbeck, best crop of wheat,	4 00
"	438.	P. L. Smith, best 3 acres oats,	2 00
"	519.	M. C. Case, ½ acre potatoes,	2 00

DIVISION B.—CATTLE AND HORSES.

CASS I.—SHORT HORNS.

No.	565.	C. P. Bush, best bull, 4 years old,	$3 00
"	184.	Geo. Taylor, best bull, 3 years old,	2 00
"	286.	Lorin Boutwell, 2d best bull, 3 years old,	1 50
"	425.	J. B. Hammond, best bull, 2 years old,	2 00
"	436.	P. L. Smith, 2d " "	1 50

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CLASS II.—CROSS OF FULL BLOOD.

No. 218. Wm Sexton, best bull, 4 years old, American Cattle Doctor and $1 00
No. 275. Job Cranston, 2d best bull, 4 years old, Amer'n Cattle Doct.
No. 312. G. B. Armstrong, best bull, 2 years old, Farmer's Dictionary, and 50
No. 71. Thos. B. Brooks, 2d best bull, 2 years old, Farmer's Treasure, and 50
No. 30. Daniel Case, best yearling bull, Practical Farrier, and 50
No. 185. Wm. Stedman, 2d best yearling bull, ... American Farrier

CLASS III.—DEVONS.

No. 253. R. Fowler, 2d best bull, 2 years old, Farmer's Treasure, and $0 50
No. 148. D. B. Power, best yearling bull, ... 1 50
No. 150. D. B. Power, best bull calf, ... 1 50
No. 149. " best cow, ... 2 00

CLASS IV.—CROSS OF BLOOD AND NATIVE CATTLE.

No. 8. H. H. Norton best heifer calf, ... $1 00
No. 176. E. N. Fairchild, best yearling heifer, Clater's Farrier, and 1 00
No. 61. J. W. Botsford, 2d best yearling heifer, ... 75
No. 151. D. B. Power, best heifer 2 years old, ... 1 50
No. 191. Alva Preston, 2d best heifer, 2 years old, ... 1 00
No. 179. H. H. Smith, best 2 years old bull, Farmer's Dictionary, and 50
No. 248. Eli Lee, best bull 3 years old, Transactions of State Society and 1 00
No. 190. Alva Preston, best cow 3 years old, American Cattle Doct.
No. 189. " 2d best cow, 3 years old, Melburn on the Cow, and 1 00
No. 399. C. L. & R. Crouse, best bull calf, ... 1 00
No. 243. Gilbert Brown, 2d best bull calf, ... 50

DISCRETIONARY.

No. 526. L. Blood, best pr. 3 years old steers, ... $1 50
No. 435. P. L. Smith, best pr. 2 years old steers, ... 1 00
No. 401. C. L. & R. Crouse, 2d best pr. 2 years old steers, ... 75

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CLASS V.—NATIVE CATTLE.

No. 499. E. Barnard, best cow, ... American Doctor.
No. 556. J. H. Galloway, 2d best cow, Melburn on the Cow and 1 00
No. 128. L. E. Beach, Jr., best yearling heifer, Clater's Farrier and 50
No. 223. R. Pettibone, best bull calf, ... 1 00
No. 15. E. B. Taylor, best heifer calf, ... 1 00

DISCRETIONARY.

No. 389. R. Martin, best matched pair 4 years old steers, Clater's Farrier and $1 00
No. 255. R. Fowler, 2d best pair 4 years old steers, Clater's Farrier and 50
No. 230. Warren Chase, best pair matched steers, 3 years old, Clater's Farrier and 50
No. 410. A. Boilon, 2d best pair matched steers, 3 years old, .. 1 00

CLASS VII.—FAT CATTLE.

No. 400. C. L. & R. Crouse, best fat ox, ... $2 00
No. 300. Geo. Switzer, 2d best fat ox, ... 1 00
No. 11. Joseph H. Pebles, best fat cow, ... 2 00

WORKING OXEN NOT CLASSED IN PREMIUM LIST.

No. 73. Geo. Lawrence, best yoke working oxen, ... $3 00
No. 386. Freeman Fishbeck, 2d best yoke working oxen..... 2 00
No. 111. Wm. Elliott, 3d best yoke working oxen, ... 1 50
No. 387. U. Winegar, favorably noticed.

CLASS VIII.—HORSES FOR ALL WORK.

No. 142. H. G. Love, best stallion, 4 years old or over, Youatt on the Horse and $3 00
No. 283. Peter Kanouse, 2d best stallion, 4 years old or over, Practical Farrier and 2 00
No. 321. S. G. Ives, best stallion, 3 years old, Youatt on the Horse and 2 00
No. 471. H. Thompson, 2d best stallion, 3 years old, ... 2 00
No. 550. Simeon Lawrence, 3d best stallion, 3 years old, The Horse, its Habits and 1 00
No. 442. S. S. Johnson, best stallion, 2 years old, Farrier and 1 50

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No. 209. James B. Wing, 2d best stallion, 2 years old, Practitical Farrier and $1 00
No. 542. D. S. Holloway, best stallion, 1 year old, ... 2 00
No. 98. E. Latson, 2d best stallion, 1 year old, ... 1 00
No. 500. Robert Bigham, best horse colt, The Horse, its Habits, and 1 00
No. 242. Wm. L. Wells, 2d best horse colt, ... 1 00
No. 1. H. H. Norton, best brood mare, Youatt on the Horse and 2 00
No. 241. Wm. L. Wells, 2d best brood mare, ... 1 00
No. 305. E. & S. Bacheldor, best mare colt, 2 years old, ... 2 50
No. 392. J. J. Benett, Jr., 2d best mare colt, Youatt on the Horse and 50
No. 393. W. Jubb, 3d best mare colt, 2 years old, Farrier and 50
No. 394. John Sellers, best mare colt, 1 year old, ... 1 50
No. 374. A. Whipple, best sucking mare colt, The Horse, its Habits, and 1 00
No. 504. H. Griswold, 2d best sucking mare colt, ... 1 00
No. 320. S. G. Ives, best span matched horses, Youatt on the Horse and 3 00
No. 452. A. Tooley, 2d best span matched horses, Transactions and 2 00
No. 113. F. Monroe, best span matched horses, 3 years old ... 3 00
No. 390. R. H. Benett, 2d best span matched horses, 3 years old, ... 2 00
No. 94. A. C. Vanderhoof, best single horse, ...Farrier and 2 00
No. 17. W. L. Carlisle, 2d best single horse, ...Farrier and 1 00
No. 432. P. L. Smith, 3d best single horse, ... 1 00
No. 114. F. Monroe, best single horse, 3 years old, Farrier and 1 50
No. 505. H. Griswold, 2d best single horse, 3 years old, Farrier and 1 00

DISCRETIONARY.

No. 315. F. Williams, stallion 2 years old, ... $0 75
No. 7. H. H. Norton, stallion, 1 year old, ... 75

CLASS IX.—DRAUGHT HORSES.

No. 219. Wm. Sexton, best span draught horses, ... $4 00

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No. 350. Wm. C. Shaft, 2d best span draught horses,..... $3 00
No. 648. L. K. Hewett, best single draught horse,..... 2 00

CLASS X.—BLOOD HORSES.

No. 476. J. R. Goodrich, best stallion, 4 years old or over, Youatt on the Horse and..... $3 00
No. 542. Joseph Daily, 2d best stallion, 4 years old or over, Practical Farrier and..... 2 00
No. 348. Wm. C. Shaft, 3d best stallion, 4 years old or over, American Farrier and..... 1 50
No. 349. Wm. C. Shaft, best mare, 3 years old or over, Youatt on the Horse and..... 2 00
No. 403. C. L. & R. Crouse, 2d best mare 3 years old or over, 1 00
No. 402. C. L. & R. Crouse, best yearling mare colt,..... 1 50
No. 477. Israel Ames, 1 jack, discretionary,..... 50

CLASS XI.—FOREIGN HORSES.

No. 540. J. E. Angel, best stallion,..... $3 00
No. 229. P. S. Buck, pair matched horses,..... 3 00

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DIVISION C.—SHEEP, SWINE AND POULTRY.

CLASS I.—SPANISH MERINOS.

No. 319. Ira & J. F. Jennings, best buck 3 years old, Sheep Husbandry and..... $1 50
No. 237. Jeremiah Billings, 2d best buck 3 years old, American Shepherd and..... 1 00
No. 146. I. & J. F. Jennings, 3d best buck 3 years old, Blacklock's Treatise and..... 1 00
No. 147. I. & J. F. Jennings, best buck under 3 years, American Shepherd and..... 1 00
No. 239. Jeremiah Billings, 2d best buck under 3 years, American Shepherd and..... 50
No. 279. J. Cranson, 3d best buck under 3 years,..... 1 00
No. 281. Job Cranson, best pen 5 buck lambs, American Shepherd and..... 1 00

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CLASS II.—FRENCH MERINOS.

No. 122. S. W. Twitchell, best buck 3 years old or over, Sheep Husbandry and $1 50

No. 118. F. Monroe, 2d best buck 3 years old or over, American Shepherd and 1 00

No. 282. Job Cranson, best buck lamb, ... 1 00

CLASS III.—CROSS OF FULL BLOOD.

No. 518. G. Trusdell, best buck under 3 years old, American Shepherd and $1 00

No. 396. Lorin Boutwell, 2d best buck under 3 years old, American Shepherd and 50

No. 493. O. J. Smith, 3d best buck under 3 years old, ... 1 00

No. 198. D. B. Powers, 5 " lambs, American Shepherd and 1 00

No. 14. E. B. Taylor, 3 best ewes, ... Sheep Husbandry and 1 00

CLASS IV.—GRADE SHEEP.

No. 280. J. Cranson, best buck 1 year old or over, Sheep Husbandry and $1 00

No. 543. Pardon Barnard, best 5 buck lambs, American Shepherd and 50

No. 214. E. Hardy, best 5 ewe lambs, ... Am. Shepherd.

CLASS V.—SOUTH DOWNS.

No. 143. H. G. Love, best buck, ... American Shepherd and $1 00

CLASS VIII.—FOREIGN SHEEP.

No. 20. C. W. Burwell, best yearling bucks, American Shepherd and $1 00

No. 21. C. W. Burwell, 2d best yearling bucks, American Shepherd and 50

CLASS IX.—SWINE.

No. 411. W. H. Martin, best boar, ... $1 50

No. 397. Wm. S. Elliott, " breeding sow, ... 1 00

No. 210. Frances Hardy, " sow and pigs, ... 1 50

CLASS X.—POULTRY.

No. 251. N. J. Hickery, best pair Shanghais, Domestic Fowls and $0 50

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No. 252. N. J. Hickery, 2d best pair Shanghais, Poultry Breeder and $0 25
No. 345. Wm. C. Archer, best Cochin Chinas, Fowl Breeder and 50
No. 376. J. H. Galloway, 2d best Cochin Chinas, ... 50
No. 475. F. J. Lee, best pair Dorkings, ... Fowl Breeder and 50
No. 250. N. J. Hickery, best pair Chittagongs, Poultry Breeder and 50
No. 375. J. H. Galloway, 2d best pair Chittagongs, Poultry Breeder and 25
No. 378. J. H. Galloway, best lot cross of blood and native, Domestic Fowls and 50
No. 187. Wm. Stedman, 2d best lot cross of blood and native, 50
No. 115. F. Monroe, brood turkeys, ... 50

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DIVISION D.

CLASS I.—FARM IMPLEMENTS.

No. 318. D. Hinman, best farm wagon, ... $2 00
No. 568. Geo. Pullin, 2d best " 1 50
No. 562. J. R. Goodrich, " buck board wagon, ... 1 50
No. 324. J. R. Mason, " wheat cultivator, ... 1 50
No. 491. O. J. Smith, " fanning mill, ... 1 00
No. 222. Wm. Sexton, " horse rake, ... 1 00
No. 359. Daniel Jackson, " grain drill, ... 1 00

DISCRETIONARY.

No. 75. Geo. Keeler, best neck yoke, ... $1 00
No. 19. A. C. Vanderhoof, best single carriage, ... 1 00
No. 322. S. G. Ives, best double carriage, ... 1 50
No. 407. Alvan Mann, 2d best " 1 00
No. 244. John Howe, best wool packer, ... 75
No. 453. A. Tooley, ... 75
No. 181. Ira Brayton, best earthen ware, ... 1 00
No. 23. W. Green, best washing machine, ... 50
No. 430. H. P. Crouse, best apple pearing machine, ... 25
No. 431. " " door fastener, ... 25

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CLASS II.—FARM IMPLEMENTS.

No. 454. A. Tooley, best double harness for general purposes, $1 50
No. 18. W. L. Carlisle, best single harness, 1 00
No. 41. Mrs. W. A. Buckland, best side saddle, 1 00
No. 492. O. J. Smith, best thermometer churn, 50
No. 24. W. Green, best bee hive, 50
No. 180. Ira Brayton, patent churn, discretionary, 50

CLASS III.—PLOWS AND PLOWING.

No. 162. Wm. White, best plowing with horses, $2 00
No. 543. Wm. Jubb, 2d " " 1 50
No. 545. Thos. Mussen, best plowing with oxen, 2 00
No. 510. L. Bishop, plowed with Jointer plow, (discretionary,) 2 00
No. 347. Stephen Clark, best plow for sod, 1 00
No. 267. A. W. Smith, 2d " " 75
No. 268. " best plow for fallow, 1 00
No. 561. Stephen Clark, 2d " " 50
No. 346. " best plow for stiff soil, 1 00
No. 262. A. W. Smith, 2d " " 75

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DIVISION E.

CLASS I.—BUTTER AND CHEESE.

No. 31. Mrs. D. Case, best 10 lbs. butter made in June, $1 50
No. 172. Miss A. Adams, " " " at any time, 1 50
No. 33. Mrs. D. Case, 2d " " " " 1 00
No. 445. Mrs. Wm. Gorton, best new cheese, 1 50
No. 323. Mrs. Wm. Sexton, 2d " " 1 00

CLASS II.—HONEY, SUGAR, AND BREAD.

No. 117. F. Monroe, best 10 lbs. honey, $1 00
No. 227. Jos. Rider, 2d " " 75
No. 121. Mrs. L. Spoone, best loaf yeast rising bread, 75
No. 437. Miss Emma J. Smith, 2d best " 50
No. 553. Mrs. J. Davis, best milk " 75
No. 332. Mrs. L. Walker, 2d best milk " 50
No. 340. Mrs. J. R. Mason, loaf " " dis. prem., 50
No. 485. Miss Laura Beach, " " " 50

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DIVISION F.—DOMESTIC MANUFACTURES.

CLASS I.

No. 331. Mrs. L. Walker, best pair woolen blankets, ... $1 00
No. 129. Mrs. L. E. Beach, 2d best " 75
No. 361. Miss L. Cole, best 10 yards flannel, ... 1 00
No. 102. P. Groff, 2d " " " 75
No. 171. Miss A. Adams, " " woolen carpet, ... 1 00
No. 309. Mrs. G. Pullin, 2d best " " " 75
No. 498. Nancy Humphrey, best 10 yards carpet of mixed material, ... 1 00
No. 194. Mrs. Isaac Appleton, best 10 yards rag carpet, ... 1 00
No. 308. Mrs. S. Beebe, 2d " " " 75
No. 26. Mrs. W. Green, best pair wool stockings, ... 50
No. 202. Miss E. H. Collister, 2d best pair wool stockings, ... 25
No. 343. Mrs. H. Mason, best pair wool socks, ... 50
No. 125. Miss C. Twitchell, 2d best pair wool socks, ... 25
No. 409. Miss M. E. Barnard, best pair wool mittens, ... 50
No. 382. Mrs. B. Campbell, 2d " " 25
No. 508. Mrs. R. P. Bush, best wool coverlet, ... 1 00
No. 507. " 2d best " 75
No. 339. Mrs. J. R. Mason, best wool shawl, ... 1 00
No. 408. Mrs. Wm. Huntington, best white spread, ... 1 00
No. 294. Mrs. J. H. Steel, 2d best white spread, ... 75
No. 311. Mrs. O. Morse, best patch work quilt, ... 1 00
No. 306. Mrs. F. Larowe, 2d best " 75
No. 468. Mrs. J. F. Jennings, best lb. colored wool yarn, ... 50
No. 354. Mrs. H. Mason, 2d " " 25
No. 124. Mrs. S. W. Twitchell, best lb. white wool yarn, ... 50
No. 82. Mrs. M. W. Randall, 2d best " " 25

DISCRETIONARY.

No. 307. Mrs. D. Sigler, quilt of patch work, ... $0 75
No. 478. Mrs. M. Carpenter, wool coverlet, ... 50
No. 373. Mrs. E. Sheffield, " 50
No. 211. Mrs. C. Hardy, quilt of patch work, ... 50
No. 120. Mrs. L. Spooner, " " 50
No. 336. Mrs. J. M. Murry, 1 pair white wool blankets, ... 1 00

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No. 103. P. Groff, carpet yarn, ... $0 38
No. 235. Mrs. J. M. Murry, 1 pair table cloths, ... 50
No. 353. Mrs. H. Mason, 1 lb. colored wool stocking yarn, ... 25
No. 35. Mrs. D. Case, 1 pair wool gloves, ... 25
No. 104. J. Groff, 1 pair cotton table cloths, ... 25
No. 502. Mrs. D. T. Wood, pair linen stockings, ... 50
No. 45. W. A. Sessions, pair cotton stockings, ... 25
No. 362. Miss L. Cole, pair wool gloves, ... 13
No. 279. Joseph Brown, specimen currant wine, ... 50

CLASS II.

No. 260. J. B. Shelbeck, best pair cowhide boots, ... $1 00
No. 258. " best pair calf boots, ... 1 00
No. 257. " 2d " " 75
No. 261. " best pair cowhide shoes, ... 75
No. 274. James Surney, best frock coat, ... 1 00
No. 55. W. R. Griffith, best bureau, ... 1 50

CLASS III.

No. 547. Nicholas Holt, best flour barrel, ... $0 75
No. 534. S. A. Pettis, 2d " 50
No. 546. Judson Holt, best pork barrel, ... 75
No. 470. B. C. Curtis, best window sash, ... 75
No. 54. W. C. & H. J. Rumsey, best cook stove and furniture, 1 00
No. 53. " 2d " " 75
No. 52. " best parlor stove, ... 1 00
No. 328. L. Walker, best bbl. flour from least quantity of wheat, 2 00
No. 549. Wm. Roberts, " " any " 2 00
No. 326. L. Walker, 2d best " " " 1 50

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DIVISION G.—DRAWINGS, PAINTINGS, &C.

CLASS I.—DRAWINGS.

No. 193. Alva Preston, best design and plan for Farm House, $2 00

CLASS II.—PAINTINGS.

No. 28. L. Hutchinson, oil painting, design, the Lost Children, .. $0 75
No. 370. Mrs. G. W. Lee, 2 pieces oil painting, ... 50

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No. 109. Mrs. W. A. Clark, 2 pencillings, design, Philip of Macedon and Christ, ... $0 75
No. 527. L. Curtis, specimen penmanship, ... 50

CLASS III.—NEEDLE WORK, &C.

No. 455. Mrs. Geo. W. Lee, best needlework on hdkf., ... 1 00
No. 335. Miss H. Wells, 2d best " " 75
No. 509. Mrs. L. D. Smith, 3d best " on collar, ... 50
No. 43. M. A. Sisson, best lace work, ... 1 00
No. 70. J. S. Hendrick, 2d best lace work, ... 50
No. 426. Mrs. J. Sowles, best crochet work, ... 1 00
No. 160. Miss C. A. Conley, 2d best crochet work, ... 75
No. 112. Mrs. R. P. Mellondy, 3d " " 50
No. 273. Mr. A. W. Smith, crochet worked hat, ... 75
No. 284. Miss Belva Plato, best raised worsted work on lamp mat, ... 1 00
No. 532. Mrs. S. S. Porter, 2d best raised worsted work on lamp mat, ... 75
No. 91. Mrs. F. J. Lee, 3d best raised worsted work on stool, ... 50
No. 269. Mrs. A. W. Smith, best worsted flat work on ottoman, 1 00
No. 368. Mrs. G. W. Lee, 2d " " " 75
No. 371. Miss L. Lee, 3d " " " 50
No. 270. Mrs. A. W. Smith, knitting on table spread, ... 50
No. 200. Mrs. L. C. York, embroidered silk apron, ... 75
No. 44. M. A. Sisson, 1 collar and 2 pr. mitts, silk knit work, ... 50
No. 200. Mrs. L. C. York, lady's satin hat, ... 50
No. 97. Mrs. M. L. Gay, chenelle work on slippers, ... 50
No. 169. Miss A. Adams, worsted work on table cover, ... 1 00
No. 366. Mrs. G. W. Lee, worsted work, the Greek Exiles, ... 1 00
No. 25. Mrs. W. Green, frame of sea moss, ... 1 00
No. 567. Mrs. Griffing, hearth rug, ... 50

CLASS IV.—FLOWERS.

No. 334. Miss H. Wells, vase wax flowers, ... $1 00
No. 381. Mrs. E. F. Gay, best vase tissue flowers 75
No. 457. Mrs. G. W. Lee, 2d best vase " 50
No. 568. Mrs. S. S. Porter, 3d best vase tissue flowers 25
No. 246. Mrs. L. C. York, case wax fruit and frame, ... 1 00

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No. 199. Mrs. L. C. York, piece pearl work, ... $0 50
No. 201. " best leather work, ... 50
No. 421. Miss L. Lee, 2d " " 25
No. 544. Mrs. E. Mundy, 1 jesamine, ... 25
No. 544. " 1 oleander, ... 25
No. 380. Mrs. J. H. Galloway, 1 verbena, ... 25
No. 420. Mrs. F. J. Lee, 1 vase garden flowers, ... 25
No. 489. Mrs. Wm. R. Melvin, 1 caper tree, ... 25
No. 216. " 1 fig tree, ... 25
No. —. Pardon Barnard, collection house plants, ... 50

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DIVISION H.—FRUIT, GRAIN, VEGETABLES AND ESSAYS.

CLASS I.—FRUIT.

No. 116. Frances Monroe, 31 varieties winter apples, 1st premium, ... Guide to Orchard & Fruit Garden.
No. 203. Richard Lyon, 24 varieties winter apples, 2d prem., The Fruit, Flower and Kitchen Garden.
No. 85. Delsa Benjamin, 12 varieties fall apples, ... The Fruit Garden.
No. 66. Joseph Bliss, best peaches, ... Fruit Garden.
No. 204. Richard Lyon, 2d best peaches, ... American Orchardist.
No. 178. Henry H. Smith, best quinces, ... $0 75
No. 303. L. R. Hewett, 2d " 50
No. 157. Wm. S. Conley, best pears, ... The Fruit Garden.
No. 412. W. H. Martin, 2d " ..... American Orchardist.
No. 173. E. N. Fairchild, best grapes, ... Spooner on the Grape.
No. 379. J. H. Galloway, 2d " American Fruit Gardener's Comp.

DISCRETIONARY.

No. 153. Samuel N. Conley, lot peaches, ... $0 50
No. 288. A. Isbell, lot grapes, ... 50
No. 134. P. L. Smith, lot apples, ... 25
No. 398. E. W. Grant, basket apples, ... 50
No. 558. J. Davis, lot apples, ... 25
No. 154. Samuel N. Conley, 4 jars gooseberries, ... 50
No. 473. David Sprague, basket apples, ... 25
No. 77. Joseph Brown, 34 varieties apples, ... 50

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CLASS II.—GRAIN.

No. 228. Joseph Rider, Jr., best bushel winter wheat, Amer. Husbandry.
No. 388. O. H. Winegar, 2d " " Text Book of Agriculture.
No. 463. S. M. Yerkus, best ½ bushel yellow corn, ... 75
No. 196. Isaac Appleton, " " white " 75
No. 101. R. Rogers, 2d " " " " 50
No. 100. " best ½ " dent " 75
No. 325. Orrin Coburn, 2d best ½ " " " 50
No. 80. M. W. Randall, best ½ " oats, ... 75
No. 139. P. L. Smith, 2d " " " 50
No. 496. E. F. Burt, " " white beans, ... 75
No. 414. W. H. Martin, 2d " " " 50
No. 63. Israel Bennett, best sample buckwheat, discretionary, .. 50

CLASS III.—VEGETABLES.

No. 330. L. Walker, best 12 blood beets, ... Am. Gardener.
No. 406. J. C. Helm, best 6 cabbages, ... Am. Gardener.
No. 106. N. Pond, best ½ bushel potatoes, ... 50
No. 519. M. C. Case, 2d best ½ bushel potatoes, ... 25
No. 167. D. Parker, best lot winter squashes, ... 50
No. 423. D. Boutwell, best white turnips, ... 50
No. 163. Wm. Lewis, 2d " " 25
No. 105. N. Pond, best ½ bushel onions, ... 50
No. 444. F. Saunders, 2d best ½ bushel onions, ... 25
No. 76. Geo. Keeler, best specimen sweet potatoes, dis. prem., 50
No. 291. Wm. R. Melvin, 2d best " " " . 25
No. 344. Mrs. H. Mason, specimen seed onions, " . 25

N. G. ISBELL,
Secretary.

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MONROE COUNTY.

J. C. Holmes, *Sec'y. of the Mich. State Agricultural Society:*

In making my annual report of the transactions of our County Agricultural Society for the present year, I beg leave to offer a few remarks in relation to the county of Monroe. It may, perhaps, be thought unnecessary for me to speak of the adaptation of the county for the successful prosecution of agricultural pursuits, as this fact is now daily becoming more generally known and appreciated. A good portion of the county consists of heavily timbered land, which is not so easily and cheaply cleared and prepared for tillage, as lighter and less valuable soils. For this reason these lands were generally avoided by the earliest settlers, who preferred the opening lands in the western counties, because they were more readily prepared for the plow. And when the tide of emigration was pouring into Michigan, but few found their way into the State by the way of Monroe. They landed generally in Detroit, and were directed west and north. The settlement of the county was in consequence greatly checked at a time when many other counties were receiving large accessions to their population by immigration. But now these lands, which were then avoided or unknown, begin to be prized, and although they may require more labor in the first instance to subdue them, agriculturists see their value over lands that have heretofore been preferred, and their power to wear, under constant cultivation, for years after the lighter soil of the opening lands is worn out by tillage. Within the past three or four years, they have nearly or quite doubled in value, and their superior qualities have recommended them to many additional settlers. The farmer who has labored hard to clear his land, finds he has a farm that meets his expectations and re-

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wards his labor, and, as a general thing, is satisfied with his prospects. We have, on the banks of the Raisin, a few farms that were occupied by the first French settlers, as early as the commencement of the present century. After years of tillage, they now often yield in favorable seasons, thirty to forty bushels of wheat to the acre. It is known that our county is quite level, and yet, when the ground is ridged, and properly prepared and drained, so as to throw off the surface water, which can be easily accomplished, the yield of wheat is very liberal and remunerative, and only fails in seasons when the crop is short in other portions of the State. A portion of the county also contains a lighter soil, oak openings, which yield fair crops, and by careful cultivation and the use of clover, plaster, &c., to enrich it, makes desirable farms. But this land is not considered so valuable as the heavily timbered, with its rich and almost inexhaustable soil.

For the cultivation of corn, there are few counties in Michigan that equal, and none that excel Monroe. There have been seasons when the crop has been partially cut off, but this is seldom the case, and as a general rule it is a reliable and profitable crop. The same is true of hay, which yields abundantly, and with the root crop, easily cultivated here, makes the county peculiarly adapted to the stock and dairy business, which must sooner or later become the leading pursuit of the Agriculturists of the county.

I may say respecting fruit, that many different varieties of apples, pears, peaches, plums, cherries, and several varieties of the grape, and other fruits, have already been introduced, are easily cultivated, and yield abundantly. In the towns bordering on the lake shore we often have a plentiful supply of apples and peaches, in seasons when further inland these choice and profitable fruits are mostly, if not wholly, cut off by spring frosts. Our county fairs have demonstrated that we have all the best varieties of the apple. Several of our farmers presented at the recent fair from fifteen to twenty of the choicest kinds; and yet, such is the estimation in which many hold what is termed the natural or common apple, that they have paid but little attention to the more highly prized and popular varieties from abroad. Indeed some of our common apples, introduced by the early French settlers, have been grafted and sent to different sections of the country, where they rank among the best varieties. The present season has not been a favorable one for

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fruit, which has been greatly damaged by the ravages of the worm, as in other sections; but if a long continued drouth shall have the effect, in connection with the unusual and protracted warm weather, to exterminate the worm and insect which prey upon our fruit, as many anticipate, it will be a great blessing to the county of Monroe.

With so many advantages in favor of this county, it may surprise some that it has, until recently, been so retarded in its growth. The reasons for it are undoubtedly those I have already assigned. But our advantages of soil and position cannot longer be overlooked, and when viewed in connection with the further advantage of one of the best markets within our own county, and close by, Detroit on the north, and Toledo on the south, it will be readily discovered that the county of Monroe is destined to contain a large and prosperous agricultural population. The tide of emigration that is to make it so has already commenced, as may be seen by the census of the present year. Among the new settlers are many Germans, who are industrious and frugal, and do much to develop the agricultural resources of the county. In 1840, the population was 9,915. In 1850, the increase for the ten previous years was shown to be only 4688, making a total of 14,603. But now the census of 1854, exhibits an increase of 3473 in four years, in all 18,076 inhabitants. At the same ratio, the number in 1860 will be about 25,000. And I am fully persuaded that if all the agricultural advantages of the county were more generally known, it would settle with much greater rapidity, and for ten years to come, exhibit as large an increase as any other in the State.

Our county fairs continue to prosper. They have, however, from the first met with more or less opposition, which generally arises from prejudice and sometimes from the impossibility of pleasing all who compete for premiums. This last difficulty may perhaps be partially obviated by arranging fairs so as to give committees more time to do full justice, by more thorough examination; but it cannot be wholly removed, as must be evident to those who come in competition, if they will candidly consider the subject. But I am happy to say that the interest the fairs awaken in the public mind is increasing rather than diminishing. Every succeeding exhibition exhibits a marked improvement in some branch of agricultural industry. This is evidently the case with stock of all kinds. Some of the best blooded animals have been introduced

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in the county. These improvements may be attributed principally to the spirit caused by the organization of the county society, in connection with that of the State; and in other interests connected with agriculture there is a spirit of progress and a more general desire for improvement. In view of these results, with all the difficulties attending our fairs, it is very doubtful whether the farmers and friends of the agricultural interests of the county would now be willing to see them abandoned.

Herewith you will find the reports of the several awarding committees of the society for 1854, and the annual address, from which you will be able to gather more full particulars of our transactions for the past year.

Respectfully,

E. G. MORTON,

Cor. Sec'y of the State Agricultural Society for Monroe Co.

FANCY ARTICLES.

The committee would respectfully report that they have examined the articles for exhibition, and, though not numerous, they are highly gratified to find so many of a high character of workmanship.

They find it difficult to decide in many specimens of fancy work, as they are so similar in value and beauty.

They have selected the following as worthy of commendation and prizes:

They only regret that the amount of money placed at their disposal was so limited that larger prizes could not be given, and to others whom they wished to reward for their industry and talent.

Best embroidery in muslin, Miss Susan Smith,	$0 50
Worsted tidy, Ladies' Industrial Association,	75
Toilet cushion, Mrs. C. Haskins,	25
" Ladies' Industrial Association,	25
Lamp mat, worsted, Mrs. W. H. Wells,	25
Embroidery, " Madame Anisansell,	25
Satin cushion, M'me "	25
Oil paintings and water paintings, M'me Annisansell,	1 50
Ottoman, embroidered, Mrs. Dickinson,	50
Crochet quilt and pillow cases, Mrs. Pool,	1 00

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Embroidered woolen blanket, Mrs. E. J. Boyd,	$0 50
" apron, Mrs. Jameston,	50
Boquet, Mrs. Haskell,	25
Linen work, blank,	25
Embroidered slippers, Mrs. Haskins,	25
Hair Purse, E. Withington,	25
Crayon drawings, Miss Kirby,	25
Painting in sepia, Mrs. W. H. Wells,	50
Child's dress, worsted embroidery, Mrs. I. Marvin,	25
Water paintings, Miss Egbert,	25
Daguerreotypes, Doct. L. S. Stevens,	1 00
House plants, cactus, Mrs. Strickland,	50
Monochromatic drawing, Miss Kirby,	25
Embroidered cap, Ellen Withington,	25

We regret that the citizens of our county do not more generally interest themselves in this department of the exhibition, and present more frequently articles that their industry and talent have been exercised upon. It would give variety and interest to these annual gatherings, promote refinement and cultivate the taste of the community.

If a little more time, during the leisure hours of the ladies, were given to fancy work and especially to the fine arts, it would do much to give an air of refinement to their dwellings, adorning their parlors with the labor of their own hands, thus rendering their homes happier and making them more and more attractive to their own families.

Such a cultivation would tend to enlarge the sphere of the mind—make it capable of receiving pleasing emotions in higher and better matters than mere sensual gratification.

We think that anything that will kindle up in our homesteads the smile of social love, and make the fire of the cottage blaze more cheerfully, as it is reflected from the pictured wall, is not to be despised.

MISS M. A. KIRBY,
MISS MARY SALTER,
MRS. I. R. GROSVENOR,
MISS SUSAN SMITH,
MISS ELIZABETH WING,
MISS HARRIET LEWIS,
Committee.

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DOMESTIC MANUFACTURES.

The committee on domestic manufactures would report that the exhibition in this department is quite good. There are many fine specimens of quilts and coverlets, also excellent rag carpeting, flannels, stockings, socks, and woolen yarn, and other articles usually exhibited in this department, all evincing that ladies are fully competent to do their share in promoting the interest of the county fairs. Your committee would recommend premiums to the following:

Best quilt, J. D. Flint,	$1 00
2d " Miss Couture,	75
3d " Jane Egbert,	50
Best stockings, Mrs. O. B. Lawrence,	50
2d " Mrs. S. G. Doty,	25
Best domestic flannel, Mrs. H. Smith,	1 00
2d best " Mrs. J. D. Galloway,	75
Best piece linen, Mrs. C. R. Smith,	1 00
2d " " Ja's Coffin,	75
Best piece carpeting, Ja's Coffin,	50

MRS. W. H. WELLS,
MRS. DR. COOPER,
MRS. J. TURNER,
MISS AVERY,
THOMAS CLARK,
Committee.

—

THE DAIRY.

The committee to report on the products of the dairy beg leave to say, they are disappointed in the very meagre number of specimens under exhibition in this very important department of agricultural economy. Your committee cannot but think, that for some cause, this interest is not adequately represented at this fair. We cannot believe that a county so peculiarly adapted as ours to grazing is so deficient in the products of the dairy as the small number of specimens presented for competition would indicate. The committee found but two cheeses, furnished by Mrs. M. Hurd, of Frenchtown, for one of which we cheer-

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fully award the first premium, $2; and for the other, a sage cheese, the second premium, $1 50.

Among the specimens of butter the committee have awarded the 1st premium, $2, to Mrs. A. J. Keeney, of Erie; the 2d premium of $1 75 to Mrs. J. D. Galloway, of Raisinville; the 3d premium, $1 50, to Mrs. J. Turner, of Erie; the 4th, $1 25, to Mrs. W. H. Montgomery, of Ida; the 5th, $1, to Mrs. W. Dunlap, of La Salle.

The committee would urge upon the attention of the society the importance of more general interest in the dairy business.

MRS. W. P. CLARKE,
MRS. J. ANDERSON,
MRS. G. HURLBURT,
MRS. S. MURPHY,
FRANKLIN JOHNSON,
Committee.

—

FARMS.

The committee on farms report: No farms entered until too late for the committee to examine, the committee having no knowledge of such application until the morning preceding the Fair. We then deputed Mr. Burch to make the examination of the only applicant. Mr. Burch states that the persen has kept no correct account of his farming operations so as to come within the rules of the Society. The committee would respectfully suggest that those entering farms, should be required to make their entries with the Secretary by the 15th of July previous to the annual Fair.

S. M. BARTLETT,
WM. H. MONTGOMERY,
Committee.

—

FARM IMPLEMENTS.

The committee on farm implements respectfully report that they have

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examined the various articles on exhibition, which were of a very respectable number, though not as numerous as we could have wished.

There was a fine display of farm wagons, both one and two horse, got up in good substantial style, and reflecting much credit on the manufacturers, and we award the first premium for best two horse wagon, made in the county, to John Little, $4. We also recommend a premium for best one horse wagon to Mr. Little, there being no premium offered on our list for this article. For best one horse buggy, we award the first premium, $3, to John Little. There is but one plow on exhibition, for which we award the first premium, $3, to J. W. Wheaton. This plow is manufactured in the township of Bedford, in this county, of steel, by J. W. Wheaton, and from personal acquaintance with it, your committee earnestly recommend it to the favorable consideration of the farmers of this county, particularly for new land.

There is an article on exhibition for cleaning out ditches or furrows, and we say unqualifiedly that this is truly a labor-saving machine, and give it the first premium, $1, to P. Loose.

A hand cider mill is exhibited which works well, but we doubt whether these hand mills will ever become favorites. Your committee are of opinion that cider made in the mass is preferable to that made and pressed in small quantities, besides being more economical. We give it the first premium, $1, to Henry Durell.

Best straw cutter, first premium, $1, to Geo. Custer.

Best corn cultivator, first premium, $1, to Geo. Custer. This article is so well known in our county as to scarcely need a remark from your committee. To those who have not tried them we would say, do so and you will buy no other kind, nor ask for anything better.

There is a fanning mill exhibited to which your committee would invite the attention of every farmer, fully believing that every one who uses one of these mills to clean his seed wheat will cease to complain of his wheat turning to chess.

This mill is well adapted to cleaning grass and all kinds of garden seeds, and separates wheat from all foul stuff in the most perfect manner. We give it the first premium, $2, to John Little.

There is a farm carriage or farm wagon exhibited, which we recommend to the favorable consideration of the executive committee as being worthy of a premium, it being made in this county and well adapted to

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the use of the farmer both for pleasure and utility, the property of W. H. Wells.

All of which is respectfully submitted.

A. J KEENEY,
JOHN MILLER,
JOHN WEEMAN,
Committee.

—

FIELD CROPS.

The committee on field crops report, that they have examined some of the mammoth corn presented by Alexander McIntyre and his application for premium duly certified to. He raised, it appears by harvesting and weighing a portion of the corn, more than 150 bushels to the acre. We award him a premim therefor of $4,00.

S. B. Lewis, who occupies the county farm, claims a premium for the best and greatest quantity of potatoes. His certified statement is that he raised 212 bushels of pinkeyes to the acre, a specimen of which we saw; they were very large of that kind. We recommend the highest premium of $2,00.

Samuel M. Bartlett, Esq., claims a premium on carrots. He presented a very particular statement in relation to management, cost, &c., duly certified to, in which he claims to have raised at the rate of 896 bushels to the acre, which was proved by digging a certain number of beds, and calculating the residue by it. It will readily be seen that it is a very profitable crop to raise; and we recommend the first premium, $2.

Mr. Burch claims a premium for the best acre of grass. He raised of herd grass and red top, which was weighed by Mr. Myers, 2 tons 186 pounds to the acre, and although not a large yield, in the absence of a better he is entitled to the first premium.

Although the following articles may not properly belong to this committee, yet, as we believe the appropriate committee had such a multiplicity of duties to attend to that they were liable to neglect some meritorious article presented, we therefore take the liberty to mention the following: We noticed a splendid specimen of bread and cakes, manufactured by one of the world's comforters, to wit, Mrs. Fishburn. O,

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how the mouths of the hungry and weary pedestrian would water in view of such a temptation! It was certainly far more enticing than the paltry apple which our good mother Eve, out of pure affection for her dear and lonely husband, presented him with. We recommend a suitable premium to Mrs. Fishburn for setting the temptation before us.

JOHN BURCH,
L. SACKETT,
E. HOTCHKISS,
Committee.

—

SHEEP.

The committee report and award premiums as follows:

Best fine wool buck, Joseph Doty,	$3 00
2d best " J. C. Reeves,	2 00
Best fine wool ewe, D. E. Morris,	2 00
2d best " J. C. Reeves,	1 00
Best pen fine wool lambs, J. C. Reeves,	3 00
2d best " " D. E. Monte,	2 00
Best long wool buck, A. J. Keeney,	3 00
2d best " "	2 00
Best native common sheep, John Knaggs,	——

WALTER REYNOLDS,
DAN'L MULHOLLAND,
JOHN BOYCE,
Committee.

—

WORKING OXEN AND STEERS.

The committee appointed to award premiums to those entering for prizes, for the best working oxen and steers, respectfully report a very creditable and praiseworthy improvement, and much regret the limited number of premiums at their disposal, as there are numerous instances in which both working oxen and steers meriting and deserving premiums, must, under the limited number offered, be passed without

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notice. The committee respectfully recommend in future, a greater number of premiums, though they may be less valuable. They award for

Best working oxen, Samuel Cooper,	$4 00
2d best " John Mulholland,	2 00
Best pair 4 years old steers, Fisher Darling,	3 00
2d best " " "	2 00
Best pair 3 " John Johnson,	3 00
Best pair 2 years old steers, R. Hendershot,	2 00
2d best " " Frederick Knees,	1 00

M. HURD,
R. W. P. INGERSOLL,
A. W. POTTER,
Committee.

—

OTHER CATTLE.

The committee award the following premiums:

Best Durham bull, A. G. Bates,	$4 00
" Devon, " I. R. Grosvenor,	4 00
2d best Devon bull, A. S. Hall,	3 00
Best grade bull, James Davenport,	4 00
2d best " Dr. E. Adams,	3 00
Best native bull, John Diver,	2 00
Best Devon bull calf, S. M. Bartlett,	2 00
Best native " Joseph Vorman,	1 50
Best 1 year old grade heifer, Wm. Hathaway,	1 00
2d best " " R. P. Ingersoll,	1 00
Best grade heifer calf, R. P. Ingersoll,	1 50
2d best " H. Hurd,	1 00
Best milch cow, L. Darrah,	2 00
2d best " Wm. B. Hathaway,	1 00
Best one year old native heifer, G. Custer,	1 00
2d best " " "	75
Best grade bull calf, John Mulholland,	2 00

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Best 2 years old grade heifer, R. Hendershot,..... $2 00
2d best " " " ..... ——

GEO. GRAHAM,
JAS. NELSON,
GEO. CUSTER,
Committee.

—

HORSES.

The committee report the first premium of $4 for best stallion, to Isaac Huff, of Dundee. The second best, $3, to George Wakefield, Monroe. First premium for best brood mare, $3, to John D. Flint, of Ash. The second premium of $2, to M. Hurd of Frenchtown. For best colt, the first premium, $2, to J. D. Flint. The second, $1, to I. B. Huff.

In regard to stallions, the committee remark that the horse owned by Mr. Wakefield, for shape and action, is much superior to the one belonging to Mr. Huff; but for strength, size, and general benefit to the county, Mr. Huff's claims the first premium.

JOHN HANSON,
SAMUEL SWEENEY,
D. E. MORRIS,
Committee.

—

OTHER HORSES.

The committee report as follows:

Best 3 year old colt, Isaac Huff,..... $2 00
2d best " M. Hurd,..... 1 00
Best 2 years old colt, I. Huff,..... 2 00
2d best " " 1 00
Best 1 year old colt, Mr. Galloway,..... 2 00
2d best " M. Hennessy,..... 1 00
Best span work horses, D. Withington,..... 4 00
2d best " A. Peltier,..... 3 00

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Best span matched horses,	I. R. Grosvenor,	$4 00
2d best "	S. M. Bartlett,	3 00
Best single pony,	R. Hendershot,	2 00
2d best "	L. G. Willard,	——
Best single horse,	L. G. Willard,	2 00
2d best "	H. Hurd,	——
Best span matched ponies,	D. T. Cole,	2 00
2d best "	Joshua Hanson,	——

N. LANGDON,
J. WEEMAN,
W. R. HATHAWAY,
Committee.

SWINE.

The committee respectfully report, that after making an unprejudiced examination of the small number of these useful animals presented for premiums, they award the first premium for best boar, $2, to Ira R. Grosvenor; the 2d premium, $1, to W. H. Wells; and for best sow and pigs, $2, to William Lewis. There is another pig on the ground for which no premium is offered, and to which this committee call the favorable attention of the executive committee.

R. HENDERSHOT,
JOSEPH DOTY,
W. R. NOWLEN,
Committee.

STATEMENTS ACCOMPANYING REPORTS.

Statement of carrot crop entered for premium at the Monroe County Agricultural Fair, 1854.

The lot contains 42 rods of ground—has had carrots on it four successive years—was plowed twice this spring, one foot deep—was sown in drills, 18 inches apart, on the 18th day of May.

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Cost with seed,			$2 00
June 1st, to 1 day's hoeing,			1 00
June 3d, 1½	"	and thinning,	1 50
July 1st, 1	"	"	1 00
" 3d, 1	"	"	1 00
" 29th, 1	"		1 00
Aug. 24th, 1	"	"	1 00
Total cost of growing crop,			$8 50

It is a well known fact that the carrot crop increases very much during this month and till the 15th of next. I have therefore, only tested the yield by measuring a distance in feet lengthwise of the row. By this mode the yield, taking the average of these trials, would be for the ¼ acre 224 bushels, or at the rate of 896 bushels per acre. The cost of gathering and housing the crop has been in other years about $1,50 per 100 bushels; the cost per bushel is, therefore, 5 cents and 3 mills. They are worth, according to my experience, very nearly, or quite as much, per bushel as oats, for feeding.

S. M. BARTLETT.

Oct. 11, 1854.

Three acres of corn cultivated by the undersigned as follows:

Fall plowing in November last of said three acres, cost	$4 50
Harrowed in spring with cultivator,	2 25
Marking and planting,	2 50
Cultivating twice both ways,	5 00
Plowing with corn plow, both ways,	2 50
Dressing with hoe after cultivating,	1 50
Total,	$18 25

The undersigned has harvested two square rods of the above three acres, shelled and weighed the same as follows:

The best one square rod yielded 56 lbs. 6 oz., and the other square rod yielded 54 lbs. 10 oz. of shelled corn, averaging 55½ lbs. to the square rod, and amounting to 158 bush. 32 lbs. per acre.

ALEXANDER McINTYRE.

RAISINVILLE, Oct. 10, 1854.

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Statement of the manner in which S. B. Lewis managed to procure the potatoe crop for which a premium was awarded.

Planted the first of May on sandy ground—used about 20 loads of straw manure to the acre, which was scattered and plowed in. Planted about 3½ feet apart, in hills, large potatoes cut so as to leave two eyes in each piece, and two pieces in each hill. Cultivated as soon as large enough to see the rows; hoed once about first of June, and then plowed with a shovel plow. The potatoes were the round pink eyes. Dug two rows one acre long, measuring 8½ bush., or 225 bushels to the acre.

S. B. LEWIS.

ELECTION OF OFFICERS.

On the last day of the fair, October 12th, the following officers were elected for the ensuing year:

Hon. John Burch, President.

A. W. Potter, Vice President.

Seba Murphy, Treasurer.

Lewis Darrah, A. G. Bates, B. F. Fifield, R. Nims, George Willard, Executive Committee.

E. G. Morton, Secretary.

ADDRESS

DELIVERED BEFORE THE MONROE COUNTY AGRICULTURAL SOCIETY AT THE ANNUAL FAIR OF 1854.

BY MR. MONTGOMERY.

Fellow Citizens—By request of your President and the Executive Committee of the society, I will endeavor to entertain you for a time on a subject immediately connected with our interests as an agricultural people.

After a season of toil in the various avocations of industrial life, it is good for us to assemble with the products of our labor and our handiwork, as evidence of the success with which our efforts have been crowned, and of the fulfillment of the promise that "seed time and harvest shall not fail."

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The mental and physical construction of man is such that unremitting toil and close application debilitates, and if persevered in, destroys that buoyancy and vivacity of life so essential to our happiness as social beings, to obviate which, feasts and games were instituted and practiced at a very remote period. The Israelites were commanded to hold their annual feasts, "And the feast of harvest, the first fruits of thy labors, which thou hast sown in the field, and the feast of my gathering, which is in the end of the year, when thou hast gathered in thy labors out of the field," at which they joined in praise and adoration to the giver of all good gifts, that bountiful benefactor who caused the earth to teem with abundance, and to bring forth in acquisition to their toil.

We, also, have our seasons of toil, and during the growing season are confined at home by our several avocations. How fit then that we should have a relaxation from business, and come up to a feast of the gathering of the fruits of the harvest, where we may also exhibit of the abundance with which our efforts have been blessed, congratulate our friends upon their prosperity, and receive their commendations for our zeal.

For variety and productiveness of the soil, a salubrious climate, and the advantages of a market, there are few localities more desirable than Monroe county, yet judging from the extensive tracts of unimproved land, equal in fertility to any in the world, these several advantages do not appear to be appreciated by those seeking homes in the west.

Our annual exhibitions demonstrate a gradual improvement and an increasing interest in all that pertains to successful cultivation; and, as a community, we were never more prosperous, though we have not yet arrived to that degree of excellence to which we should attain, and to which we may arrive by a judicious husbanding of our resources.

We cultivate too much land. If the labor bestowed were expended upon half the number of acres, our products would be more and our expenses less. Notwithstanding there are many good farmers in the county who are becoming wealthy by agriculture, the majority are barely able to come out even at the end of the year, and some fall behind, especially in a season like the present, when their main dependance, the wheat crop, has failed. This should not be; every person who cultivates a soil adapted to so great a variety of products, can so bestow their labor as to realize remunerative returns if properly applied.

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I have said that we cultivate too much land, which means that we spread our labor over too much surface, and of necessity must keep it enclosed, by which we incur very heavy expense for fencing, and not unfrequently have merely an apology for a fence, one that promotes vicious habits in our stock, testing strongly the forbearance and good will of our neighbors.

You will perceive by the tenor of my remarks that I have taken our short-comings in agriculture, and the routine of life more immediately connected therewith, for my subject—a subject, although not so pleasant to contemplate, yet if properly heeded, will be attended with more beneficial results than to glide over the bright side of the fields of life without casting an eye into the nooks and corners, or endeavoring to eradicate the thistles, and other useless and pernicious weeds which are continually encroaching upon our domain.

By endeavoring to plan largely, we are compelled to work early and late, and to employ much extra labor, and at prices precluding the idea of there being anything left in the way of gain; or, as is often the case, we endeavor to accomplish too much within our own means, thereby depriving ourselves and our families of that relaxation and social intercourse requisite to their well being, conducive to health and promotive of future happiness.

We have no spare hours at our command to appropriate to the improvement of the mind or cultivation of the social virtues—it is one continued drudge, drudge, drudge. We prepare our ground in a hurry, and plant in a hurry; we till in a hurry, and any thing done hurriedly is seldom well done, and if there is a time when we are not hurried, it is at the harvest when light crops are easily secured.

Or, if we succeed in raising good crops, as many do, it is at ruinous rates to the future productiveness of a soil thus managed. By neglect of skill and proper attention in cultivation, the whole burden is thrown upon the soil, which will in process of time become exhausted, and experience demonstrates that it is much easier to preserve our land in its natural fertility than to renovate it when deprived of its fertilizing properties.

We create a distaste for agricultural pursuits. A life where all is toil, and that, during a part of the year, of the most laborious kind, is adopted from necessity, and not from choice, by our young men, who to

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evade it, resort to mechanical, commercial and professional pursuits, in which, though many succeed, very many do not arrive to that degree of eminence they might attain, were the same energy and assiduity intelligently applied to agriculture.

By taxing our whole resources upon field labor, we are forced to neglect many minor, though no less important improvements, around our dwellings, such as the setting of shade trees, the cultivation of fruits, and ornamenting our premises, thereby contributing to the health, pleasure, and contentment which should predominate in the household of every farmer.

If the pursuit of happiness is our aim, (and it should be with all intelligent beings,) we do not attain it by the rapid accumulation of wealth, especially if obtained by the exhaustion of the physical and mental energies. Unless blessed with iron constitutions, we are left with the frame of a man, but are bereft of the vigor and vital energy of manhood.

The question then arises: how shall we then so manage in the disposition of our labor and investments as to make the pursuit of agriculture pleasant and desirable?

An important and indispensable object to be attained is to bring to our aid a greater degree of intelligence. We cultivate the soil and it brings forth, yet we do not know the constituent properties of the soil nor of the products. We know from experience, (sometimes dearly bought,) that certain crops are well adapted to certain soils, and are not at all adapted to others; but we know from observation and experience that wheat, our staple commodity, grows luxuriantly on our rich alluvion soils. We also know, or our millers do, that much of it is shrunken or well besprinkled with chess. We know that soils rich in vegetable deposits do not contain all the materials necessary to perfect the growth of wheat. Lime, or phosphate of lime, may not exist in quantity sufficient for the berry, yet its absence could hardly be detected without analysis. Silica may not exist to give strength and tenacity to the straw. The oxyde of iron may be in excess. Sulphuric acid may superabound. Yet with our limited knowledge in the science of agriculture we hardly know what to administer as palliatives or correctives. Some of us assume to know from the general and botanical arrangement of plants, their vegetable physiology and vegetable anatomy, that

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it is impossible for wheat to become chess, others are equally sanguine that it does. These difficulties, and the cloud of ignorance overshadowing us, may all be obviated and dispelled by increasing knowledge in our profession.

Cultivate no more land than can be cultivated well with reasonable labor. Immoderate and long continued exertion creates disquietude, depresses the physical and vital powers, leaving the system subject to disease, which not unfrequently comes upon us, induced by over exertion. Exercise your mental as well as your physical qualifications in all you do—do it skilfully and you will save much extra labor. I hazard nothing by the assertion that one fourth the labor of man and team required in plowing might be saved by a skillful adjustment of the plow. Good plowing saves much in the after culture, and is a pleasant part of farm labor; whereas a plow not properly arranged or guaged, held by a person without skill to manage it, goes routing and tearing through the ground. The holder, performing all sorts of antics, besides losing his patience and abusing his team, contaminates the purity of a virgin soil, forfeits all reasonable expectations to the legitimate products of his land, and after combatting rank growth of weeds during the season, closes up with a light crop, sells out and goes west, where they say land will produce without cultivation.

Introduce a variety of crops, and in so doing, endeavor to have them come in succession, that none may be neglected in their proper time of culture. Also introduce system in your operations, by planning your work at the commencement of the season. Look over your ground, estimate the amount of labor necessary to be expended on each parcel, the force you can employ, and the means of maintaining it, having all these determined with reasonable certainty, go ahead with energy and perseverence, and with good seed and successful cultivation you need not doubt the award of a beneficent providence.

There is no avocation where much reading is so necessary or more surely rewarded than that of the farmer. By it we obtain a knowledge of the improvements in agricultural implements, the experience of those eminent in the business, the requirements of the world for every disposible product, and its probable value.

We may also learn the properties of the soil we cultivate, its adaptation to particular crops, what exists and what is necessary to be supplied,

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the evils to be guarded against in the raising of certain crops, as smut, rust, blight, Hessian fly, and weevil in wheat, rot in potatoes, the extirpation of the grub or cut worm in our corn fields, as also the character of the insect tribes which are committing depredations on our fruit trees. We also have need to know the nature, constitutional disposition and liability to disease of our various kinds of stock, how best to promote their growth, how to preserve them in health, and how to restore them when attacked by disease.

I am happy to believe the prejudice once existing against "book farming" is being dispelled, and we are more willing to learn from the practical experience of men who have devoted their talent to scientific investigations and practical tests, and given publicity to the result for the benefit of those not qualified to make the research.

In view of the many depredations on the wheat crop, it behooves us to turn our attention to other sources. Fortunately we are so situated as to avail ourselves of a market for anything we may raise. Our stock, fruit, grain and vegetables, find a ready sale, and the facilities of transportation will always secure to us remunerative prices.

Should we be obliged to discontinue the raising of wheat extensively, for a time, it will be no great calamity—taking into consideration the expense attending it, and the exhaustion of the soil, it cannot be considered a good paying crop. There are other resources more reliable and which make as good returns, among which is the rearing of stock; by turning our attention to that, we retain the growth of our fields in grass and hay in the form of manure on the premises, and our lands will be enriched in the process. We may with safety engage extensively in the dairy business; the culture of Indian corn is also a good business and pays well in connection with the dairy.

We can raise our pigs with the offal of the dairy and fatten them with our corn, while our butter, cheese and pork will command cash at paying prices.

The cultivation of good fruit is also a lucrative business, securing pleasure and profit—one hitherto quite too much neglected. In no way can we make an investment which will secure more ample returns than by the propagation and culture of fruit. Our soil and climate are favorable to its growth, and it has an aroma superior to eastern fruit of the same variety, and commands fair prices in the eastern markets. But

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we need not lack for a market nearer home; it should enter more largely into the consumption of every family.

To succeed in the cultivation of choice fruits, it is of primary importance that we proceed intelligently. We should know the nature of the soils and manures adapted to their growth, and their influences upon particular varieties of fruits, the degree of fertility required; also their mode of growth and bearing, their hardiness and productiveness, the most approved and successful way of pruning, gathering and securing.

In this most lucrative, pleasant and desirable employment, we are much assisted by the experiecce of those who have made Horticulture their particular study, but very much will depend on our experience and close observation. It is not profitable to attempt to cultivate too great a variety. Select some of the most approved kinds, those noted for their early maturity, medium size, richness of flavor, as well as for their adaptation to culinary purposes, and for their hardiness and long keeping; consult, in a measure, the requirements of the markets. Cultivate well, prune judiciously, and you will have secured a permanent and fruitful source of present enjoyment and future prosperity.

We may also engage largely in the production of clover seed, an article always in good demand, and at fair prices, in the raising of which the quality of the soil is improved, its rich foliage drawing much of its required nutriment from the ammonia of the atmosphere, and shading the ground protects itself from extremes of drouth; also favoring by its dense shade, a nitrous deposit in the soil, its long roots extending deeply, furnish much vegetable nutriment for succeeding crops.

I have remarked that in no avocation is much reading more necessary, or more surely rewarded than in agriculture. Much thinking is also necessary. It is as essential to success that our minds should be inured to labor, and both repay in the most ample manner all efforts bestowed upon them. All great achievements have been accomplished by the powerful thinking mind, sustained by the endurance of the muscular body. In all we do, the latter should be subservient to the former, as it is secondary in its nature, and designed to execute what the former had conceived. All that man has yet brought forth as the result of his skill, ingenuity and perseverance had a previous existence as the subject of his thought. The great misfortune with us as a class is in

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the imperfect manner of bestowing the energies of the mind to the avocations of the body. We are content to do the physical labor, and let others do the thinking. The effect has been to make the one a despot, the other a slave; to degrade bodily labor, even while furnishing the man of thought the means that rendered his existence possible. Our labor is often ill directed and unsatisfactory in practical results, from the neglect of mature reflection. We press forward with an energy and perseverance worthy of success, yet without mature deliberation or adequate conceptions of the properties of the soil we cultivate, the kinds of produce best adapted to its production, or how we can best raise them and in the greatest quantity, with the least amount of labor, on the smallest quantity of land, and the prospective demand for the products when raised.

Experience has taught us that on most soil it is not profitable to raise a succession of crops of the same genus or species; hence we do not raise wheat after wheat; and why? Because experience has taught us that it exhausts the soil. Here then is a wide field for the exercise of thought and scientific investigation—what were the original elements constituting the soil; what have been absorbed by the crops; to what extent, and how much economically returned; what agency has the sun and atmosphere in the perfection of the crops, and the different varieties of soil; what are the constituent properties of the crop raised; of what is the berry and the straw composed; do the elements exist in the soil; if not, what needs to be supplied; are any in excess; if so, how counteracted; how can we most effectually guard against diseases and depredations to which it is subject? These and numerous other questions will suggest themselves to the inquiring mind, furnishing room for reflection and research, thought and investigation, and who is so much interested in the development and elucidation as the practical farmer? In solving these questions, the mind, by its active participation, may, for the first time, make the discovery that it possesses capacities hitherto unknown to itself; many a dormant energy may be aroused, that will give new vigor to the mind and excite new inquiries, urging it on to the further acquisition of knowledge in the line of its profession.

Nor would we be willing to stop here—being conscious of our limited knowledge, we shall realize the necessity of giving our sons a more thorough education than we had the ability to obtain. We shall be prompt-

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ed to insist, not merely on a course of lectures, to be delivered in some department of our State University, which none go to hear, save those who are wealthy, or are in attendance preparatory to other professions, but upon an institution devoted wholly to the sciences most immediately connected with agriculture, where they may learn that to be eminently successful in their agricultural avocations, science is as necessary as axes;

Where after having been instructed, not only in the science but by practical experience, they may return to us to reduce to practice improved methods of farming, infusing into the lethargic mind of the agriculturist new energy, and demonstrating that in the routine of duties pertaining to the life of a farmer, there is much work for the brain as well as for the muscle;

To teach us how, without the art of the alchymist, we may change earth into gold; how, by the exercise of the physical in subserviency to the mental faculties, we may give dignity to labor.

Having dwelt somewhat upon the profits and advantages attending the cultivation of fruit, I would not detain you longer on the subject, were it not for the little attention given to this pleasant, profitable and recreative employment by the farming community generally. Were it in my power to fix a standard to which every one must attain, before entitled to the honorable name of farmer, I would make as an important requisite, the cultivation of a choice variety of fruits for home consumption. In no way can we contribute more to the health, pleasure and gratification of our families and friends, than by providing an abundance of the choice varieties of fruit. The apple, peach, pear, cherry and grape, and the variety of berry fruit, are when used judiciously, healthy and nutritious, and are easily propagated; giving pleasant and useful employment to parents and children, contributing essentially to the formation of industrious habits, and home pleasures.

In the reminiscences of our youthful days, on what do we fix our minds with more complacency than upon the good old home, surrounded by the pear, peach, plum and cherry, arranged for utility as well as ornament, with the orchard near by, and the fruit garden all laden in their season with melting luscious fruits. Those scenes are hallowed in our recollection, not only as the place of our birth, but from the many

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sportive pleasures and innocent gratifications enjoyed in their shade, luxuriating on the delicious fruit.

Parents, would you have your homes pleasant, inviting, and more desirable than any other place for your children—ornament them with fruit and shade trees. It is not the noble edifice, however symmetrical in its proportions, nor the neatly arranged out buildings and well managed farm, which possess the only attraction, these are merely the outlines—fruit, shade and flowers are the finishing tints, which give enchantment to the view, and captivate the mind of youth and of age, instilling into it a pleasurable emotion, and exercising over it a happy and benign influence.

Permit me to call your attention to another subject intimately connected with the pleasures, employments and comforts of home, an employment in which not only the farmer, but the mechanic, the merchant, and the professional man may participate with advantage to bodily health, as a relaxation from the cares and turmoil of active life, as well as for pecuniary interest. No person should be so wholly absorbed with his business as not to be able to cultivate a garden, and by this I do not mean that we hire a gardener to lay out our grounds, and keep them in order, but that we take the spade and hoe in our own hands, and having prepared the ground that we allot to each member of the family, a plot for their particular cultivation, giving such advice and aid as may be necessary, yet leaving the responsibility upon the occupant; inspire them with an ambition to excel, encourage them by your example and the prospect of gain, induce them to habits of early rising and practical industry, and with proper mental and moral culture, we will have made sure the foundation, and paved the way to future prosperity.

We do not need the floating gardens of the Chinese, the hanging gardens of the Persians, nor the fountain gardens of the Arabians, ours are household gardens, the runway for infancy, the laboratory for youth, and of contemplation and meditation for maturer age. Eden and Gethsemane have made them sacred in our associations. It was there man was placed in sinless purity, and there our Savior retired in prayer and supplication for a benighted and sinful people.

Although agriculture as a science may yet be said to be in its infancy, each day and each year developing to us new light, opening to our visions new sources of enjoyment and new incentives to action, yet in-

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dustry and perseverance have accomplished much in producing a talismanic change in the appearance of our country. It is but a quarter of a century since this beautiful peninsula, now teeming with wealth and all the elements and enjoyments of refined life, was almost an unbroken wilderness. When the wide spreading prairie was the pre-emption of the wolf—the deep-tangled forest, a resort and cover for the bear—while the noble deer with extended nostril, antlers wide and symmetry of form went careering through our woody lawns. The Indian, the native of the forest was, except to a limited extent, its only occupant, when this, the favorite land of Pontiac and Tecumseh was, though beautiful, an uncultivated waste. Now, what do we behold? A land made vocal by the busy hum of industrial life. A land which industry, guided by sagacity and intelligence, has covered all over with blessings. A land where wisdom and virtue are appreciated, and honest industry meets its just reward. Can the wheels of prosperity now rolling with such velocity be reversed, and carry us backward on the highway of life? Should we relax our vigilance, and close our benevolent institutions, how soon, O! how soon, would luxury and sensuality, the concomitants of ignorance and vice, hang over uslike an incubus, destroying our proud monuments of wealth, wisdom and virtue.

Why is it that Greece and Rome, once the proud monarchs of the world, the land of a Solon, an Aristides, a Lycurgus, a Socrates and Demosthenes, of a Seneca, a Cicero and the home of the Cæsars, are now sunken in ignorance and sensuality? Why have Egypt and Palestine, Italy and Spain, once the gardens of the world, lost their enchantment; their rich vineyards and fertile fields changed to a desert range and an arid waste?

Ignorance, the parent of sloth, indolence and luxury, the incentives to vice, mental and physical inactivity, have cast a blight over the vine and the corn blade, and changed their verdure and sunshine to penury and want. Our social compact rests on a surer basis. Our institutions, benevolent, philanthropic and social, are the conceptions of the wise heads and pure hearts of our own people. Our days are not spent in idle pageantry, nor our nights in revelry and dissipation. Time, as well as health and the energies of the mind, to us are treasure. Our dependence on that Being who gave us blessings, our obligations to society, and our own well being forbid that we should squander the one, or

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abuse the others. We are admonished by the past to advance step by step, with expanding minds and conceptions on a broader basis, to a progressive future. Thus with the freest thought and the greatest liberty of action, consistent with a well ordered society, we are verging rapidly to broader fields of usefulness in political and social life. I cannot permit this occasion to pass, without expressing to the ladies of Monroe the thanks of the society for their assiduity in contributing to the interest of this festive meeting by the exhibition of their skill in construction, harmony and chasteness in the arrangement of their handiwork, exhibited in Floral Hall. You have given your hands to the spindle, they have laid hold of the distaff, and have been stretched out to the needy; you have made unto yourselves coverings of tapestry, and clothing of silk and purple, your works praise you in the gates. Though man be the material organism in the conception, development and execution of all great enterprises, woman is the immaterial, the soul, the spirit and the life.

Finally, fellow citizens, members of this association, let us congratulate ourselves and the community on the prosperity of this society, its eminent success aided by the educational institutions in our midst, in disseminating useful information in our several avocations, opening up to us and posterity a new and improved rural, moral, and intellectual sphere.

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OAKLAND COUNTY.

The sixth annual meeting of the Oakland County Agricultural Society, was held at the Court House, in the village of Pontiac, on Tuesday, January 3d, A. D., 1854.

Hon. Charles Baldwin, the President of the Society, took the chair and called the meeting to order.

On motion of Moses Wisner, it was

Resolved, That the title to the lot of land now held by John P. Le Roy, Moses Wisner and Charles Baldwin, known as the Fair Ground, be deeded by them to such person or persons as the executive committee of the Oakland County Agricultural Society may direct, in trust for said society; and in case said society become extinct, that the same be then appropriated for the benefit of common schools in the county of Oakland.

The following persons were then elected officers of this society for the ensuing year, viz.:

President—Hon. Charles Baldwin, of Avon.

Vice Presidents—Albert Terry, Avon; Wm. T. Snow, Addison; Thomas C. Beach, Bloomfield; Ira P. Thurston, Brandon; Mark A. Green, Commerce; Andrew C. Walker, Farmington; Horatio Wright, Groveland; Oliver P. Davison, Highland; Charles I. Harback, Holly; Thomas Johnson, Independence; William Harman, Lyon; Robert Thompson, Milford; Gideon Scott, Novi; Hiram Morgan, Oakland; William H. Powell, Oxford; Elijah B. Clark, Orion; Walter Whitfield, Pontiac; Asa Reynolds, Rose; Nelson Schuyler, Royal Oak; Charles V. Babcock, Southfield; Alexander T. Bush, Springfield;

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James Bailey, Troy; Isaac I. Voorhies, Waterford; Joseph Coates, West Bloomfield; Edmund V. Bockman, White Lake.

Treasurer—Samuel E. Beach, of Pontiac.

Recording Secretary—Joseph R. Bowman, of Pontiac,

Corresponding Secretary—Wm. W. Phelps, of Pontiac.

Resolved, That the second article of the constitution of this society be so amended that the same shall read as follows:

"ARTICLE 2. The officers of this society shall be a President, one Vice President for each Representative District in the County, a Treasurerer, Recording Secretary, a Corresponding Secretary and an Executive Committee of ten members to be chosen for that purpose. The above officers shall be elected by ballot and by a majority of the votes cast at the annual meeting of the society, (except the Vice Presidents, who shall be chosen *viva voce*,) and shall hold their offices one year, and until others are chosen in their places."

The above amendments to the constitution were adopted by a vote of two thirds of the members present.

The following persons were then elected members of the Executive Committee:

Nelson W. Clark, Clarkston; Moses Wisner, Pontiac; Morgan L. Brooks, Novi; Harrison Voorhies, White Lake; James Bailey, Troy; John Thomas, Oxford; George Satterlee, Bloomfield; Linus Cone, Troy; Hiram Barritt, Commerce; Andrew C. Walker, Farmington.

On motion of Joseph Coates,

Resolved, That each member of this society shall have the privilege of entering articles at the county fair in his own name, or the name of any member of his family except males over 21 years of age.

On motion of Judge Van Valkenburgh,

Resolved, That a committee be appointed by the President to prepare a memorial to be presented to the Legislature of this State, at their next meeting, praying the incorporation of the Oakland County Agricultural Society.

Judge Van Valkenburgh, John P. Le Roy and Moses Wisner, were appointed said committee.

The society then adjourned.

CHARLES BALDWIN,
President.

JOSEPH R. BOWMAN, *Sec'y.*

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At a meeting of the executive committee of the Oakland County Agricultural Society, held pursuant to notice, on the 2d day of February, 1854, present,

Hiram Barritt, Nelson W. Clark, George Satterlee, Morgan L. Brooks, Moses Wisner, John Thomas—*Executive Committee.*

Joseph R. Bowman, *Secretary.*

The President being absent, Hiram Barritt, Esq., was chosen Chairman, *pro tem.*

Resolved, That we now proceed to business.

On motion of Nelson W. Clark, the following preamble and resolutions were then adopted:

Whereas, The Board of Supervisors of the County of Oakland, at their last session, on the 4th day of January, A. D., 1854, adopted the following resolutions:

Resolved, By the Board of Supervisors of the County of Oakland, that a deed be made of the agricultural lot to the village of Pontiac: *Provided*, That said village lease to the Agricultural Society said lot free of charge, so long as said society shall need it for that object.

Resolved, That the Treasurer of Oakland County pay to the Executive Committee of the Agricultural Society of the County of Oakland, the money raised by said county for agricultural purposes, for the year 1853, to be expended as follows, to wit.: Six hundred dollars to be paid on premiums, and the balance to be expended for other objects specified in said law. The Treasurer of the county of Oakland shall withhold the money above alluded to until the deed is made and executed by John P. Le Roy, Moses Wisner and Charles Baldwin, to the President and Trustees of the Village of Pontiac and their successors in office, and a certificate of the Register of Deeds given and received by the Treasurer of Oakland county of the fact.

Resolved, That the resolution of Wm. Button, adopted on the 19th day of October last past, repugnant to and contrary to the provisions of the above resolutions, together with all other resolutions relative to the same subject matter inconsistent with the last above resolutions be and the same are hereby rescinded.

Therefore, be it

Resolved, That John P. LeRoy, Moses Wisner and Charles Baldwin be authorized to deed the grounds known as the Fair Grounds, to the

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corporation of the village of Pontiac, for the use and benefit of the Oakland County Agricultural Society, and in case said Society shall hereafter become extinct, that their said land shall be kept forever free, as public grounds, for the benefit of the citizens of Oakland county.

Resolved, That the treasurer of the Oakland County Agricultural Society pay to John P. LeRoy four hundred and fifty dollars, to pay all debts due for the lot known as the Fair Ground, and the necessary expenses thereby incurred; and that said LeRoy be required to file vouchers with the secretary, showing the disbursement thereof.

Resolved, That we now adjourn to meet in the Court House, in Pontiac, on the first Thursday of May next, at ten o'clock in the forenoon, and that the secretary notify the members of the adjourned meeting.

JOSEPH R. BOWMAN,
Recording Secretary.

—

At an adjourned meeting of the Executive Committee of the Oakland County Agricultural Society, held pursuant to notice, at the Court House in Pontiac, on Thursday, the 4th day of May, 1854; present,

Charles Baldwin, *President.*

Joseph R. Bowman, *Recording Secretary.*

Linus Cone, Nelson W. Clark, Morgan L. Brooks, Harrison Voorhies, George H. Satterlee, James Bailey, Andrew C. Walker, Hiram Barritt, and Moses Wisner, *Executive Committee.*

Resolved, That the Society hold its next annual fair at the Fair Ground in the village of Pontiac, on Thursday and Friday the 21st and 22d days of September next.

Resolved, That the sum of eight hundred dollars be awarded in premiums the present year.

Resolved, That the President, Secretary, and Moses Wisner, be a committee to revise the rules and regulations of the Society.

Resolved, That Messrs. Wisner, Satterlee and Bowman, be a committee to settle with John P. Le Roy, relative to disbursment of money for remaining incumbrances on fair ground.

Adjourned to meet at the Court House in Pontiac, on Tuesday the 15th day of August next, at 10 o'clock in the forenoon.

J. R. BOWMAN, *Rec. Secretary.*

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At an adjourned meeting of the executive committee of the Oakland County Agricultural Society, held pursuant to notice, at the Court House, in Pontiac, on Tuesday, the 15th day of August, A. D., 1854, present,

Charles Baldwin, *President*,

Joseph R. Bowman, *Rec. Secretary*.

Linus Cone, Andrew C. Walker, Nelson W. Clark, Morgan L. Brooks, James Bailey—*Executive Committee*.

Resolved, That Moses Wisner and Joseph R. Bowman, be a committee to make the necessary arrangements for the fair.

Resolved, That the committee of arrangements be and they are hereby instructed to enlarge the building called Floral Hall, also the one for fruit and vegetables, each from ten or sixteen feet in length.

Resolved further, That said committee are hereby authorized to arrange said buildings and the pens for animals, in such a manner and form as they may deem most suitable and convenient.

Resolved, That said committee are hereby also empowered and directed to employ gate keepers and sufficient police to take charge of and arrange the articles entered for exhibition, and also to furnish sufficient provender for the animals on exhibition.

The committee appointed to settle with John P. LeRoy, in relation to disbursments of money, made a report in writing, on file, which was accepted and adopted.

The meeting then adjourned.

JOSEPH R. BOWMAN,
Rec. Secretary.

LIST OF PREMIUMS

To be awarded by the Oakland County Agricultural Society at their annual exhibition, to be held at Pontiac on Wednesday and Thursday, the 17th and 18th days of October, A. D. 1855.

CLASS I.—CATTLE, SHORT HORNS.

Judges.—Joel T. Griffin, Clarkston; Wm. Satterlee, Birmingham; Andrew C. Walker, Farmington.

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Best bull 3 years old or over,	$6 00
2d " 3 " "	4 00
3d " 3 " "	2 00
Best bull 2 "	4 00
2d " 2 "	3 00
3d " 2 "	2 00
Best bull 1 "	3 00
2d " 1 "	2 00
3d " 1 "	1 00
Best bull calf,	2 00
2d best "	1 00
Best cow 3 years old or over,	5 00
2d " 3 " "	4 00
3d " 3 " "	2 00
Best heifer 2 years old,	4 00
2d " 2 "	2 00
3d " 2 "	1 00
Best heifer 1 "	3 00
2d " 1 "	2 00
3d " 1 "	1 00
Best heifer calf,	2 00
2d best "	1 00

CLASS II.—CATTLE, DEVONS.

Judges—Same as class I.

Best bull 3 years old and over,	$6 00
2d " 3 " "	4 00
3d " 3 " "	2 00
Best bull 2 "	4 00
2d " 2 "	3 00
3d " 2 "	2 00
Best bull 1 "	3 00
2d " 1 "	2 00
3d " 1 "	1 00
Best bull calf,	2 00
2d best "	1 00
Best cow 3 years old or over,	5 00

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2d best cow 3 years old or over,	$4 00
3d " 3 " "	2 00
Best heifer 2 years old,	4 00
2d " 2 "	2 00
3d " 2 "	1 00
Best heifer 1 "	3 00
2d " 1 "	2 00
3d " 1 "	1 00
Best heifer calf,	2 00
2d best "	1 00

CLASS III.—CROSS OF BLOOD CATTLE.

Judges.—Riley C. Cone, Troy; H. V. D. Boget, Novi; George W. Collins, Farmington.

Best bull 3 years old or over,	$6 00
2d " 3 " "	4 00
3d " 3 " "	2 00
Best bull 2 "	4 00
2d " 2 "	3 00
3d " 2 "	2 00
Best bull 1 "	3 00
2d " 1 "	2 00
3d " 1 "	1 00
Best bull calf,	2 00
2d best "	1 00
Best cow 3 years old or over,	5 00
2d " 3 " "	4 00
3d " 3 " "	2 00
Best heifer 2 "	4 00
2d " 2 "	2 00
3d " 2 "	1 00
Best heifer 1 "	3 00
2d " 1 "	2 00
3d " 1 "	1 00
Best heifer calf,	2 00
2d best "	1 00

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CLASS IV.—CATTLE, GRADES AND NATIVES.

Judges.—Henry W. Horton, Groveland; Aaron Chapman, Northville; Walter Whitfield, Pontiac.

Best bull 3 years old or over,	$5 00
2d " 3 " "	4 00
3d " 3 " "	3 00
Best bull 2 "	4 00
2d " 2 "	3 00
3d " 2 "	2 00
Best bull 1 "	3 00
2d " 1 "	2 00
3d " 1 "	1 00
Best bull calf,	2 00
2d best "	1 00
Best cow 3 years old or over,	5 00
2d " 3 " "	4 00
3d " 3 " "	3 00
Best heifer 2 "	4 00
2d " 2 "	3 00
3d " 2 "	2 00
Best heifer 1 "	3 00
2d " 1 "	2 00
3d " 1 "	1 00
Best heifer calf,	2 00
2d best "	1 00

CLASS V.—WORKING OXEN, STEERS AND FAT CATTLE.

Judges.—Leland Green, Farmington; John M. Norton, Troy; Wm. A. Denison, Troy.

Best yoke of working oxen 5 years old or over,	$6 00
2d best " " 5 " "	5 00
3d " " " 5 " "	4 00
Best " steers 4 years old,	4 00
2d best " " 4 "	3 00
3d " " " 4 "	2 00
Best " " 3 "	3 00
2d best " " 3 "	2 00

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3d best yoke steers 3 years old,	$1 00
Best " " 2 "	3 00
2d best " " 2 "	2 00
Best " " 1 "	2 00
2d best " " 1 "	1 00
Best pair of fat cattle,	5 00
2d best " "	3 00
Best fat cow,	3 00
2d best "	2 00
Best 3 yoke of oxen from any one town,	10 00

CLASS VI.—FOREIGN STOCK.

Best Durham bull,	$4 00
" " cow,	4 00
" Devon bull,	4 00
" " cow,	4 00
" stallion,	4 00
" brood mare,	4 00
" buck, fine wool,	3 00
" pen of 5 ewes,	3 00

Any stock owned in the county may have the privelege of competing with foreign stock.

Judges on cattle in this class same as class 4; on horses the same as class 7; on sheep the same as class 10.

CLASS VII.—BLOOD HORSES.

Judges.—Thomas F. Gerls, Troy; Oscar F. North, Pontiac; —— Putnam, Highland.

Best stallion 5 years old and over,	$7 00
2d " 5 " "	6 00
3d " 5 " "	5 00
Best stallion 4 "	5 00
2d " 4 "	4 00
3d " 4 "	3 00
Best stallion or gelding 2 years old,	4 00
2d " " 2 "	3 00
3d " " 2 "	2 00
Best stallion 1 year old,	3 00

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2d best stallion 1 year old,	$2 00
3d " 1 "	1 00
Best horse colt,	2 00
2d best "	1 00
Best brood mare 4 years old and upwards, with foal at foot,	6 00
2d best " " " " "	5 00
3d " " " " " "	4 00
Best mare 3 years old,	4 00
2d " " "	3 00
3d " " "	2 00
Best " 2 " "	3 00
2d best mare 2 years old,	2 00
3d best mare 2 years old,	1 00
Best mare 1 year old,	3 00
2d best mare 1 year old,	2 00
3d best mare 1 year old,	1 00
Best mare colt under 1 year,	2 00
2d best mare colt under 1 year,	1 00

Judges on this class are the judges on foreign horses.

The judges on blood horses should take into consideration for comparison, the following distinct points:

1st. The pedigree, which should be so authenticated by certificate or affidavit as to be thought reliable.

2d. The size, symmetry and general conformation of the horse so as to fully indicate his blood in his appearance.

3d. The light and graceful action which is alone the character of the "Blood Horse" not only for speed but for bottom.

Any horse entered as a Blood horse, and differing essentially in any of these considerations, when viewed in connection, should be ruled out of said class.

CLASS VIII.—HORSES FOR ALL WORK.

Judges.—George H. Satterlee, Birmingham; Daniel C. Killam, Pontiac; Stephen Lapham, Farmington.

Premiums same as class 7.

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CLASS IX.—WORK HORSES.

Judges.—Austin N. Kimmis, New Hudson; Myron G. Cobb, Clarkston; Seeley Harger, West Bloomfield.

Best farm team, mares or geldings, 4 years old and over,	$6 00
2d best farm team, mares or geldings, 4 years old and over,	4 00
3d " " " " " "	3 00
Best pair of carriage horses, 4 years old or over,	6 00
2d best pr. of " " " "	4 00
3d best pr. of " " " "	3 00
Best pair of matched mares, 4 years old and over,	6 00
2d best pr. of " " " "	4 00
3d best pr. of " " " "	3 00
Best pair of " " or geldings, 3 years old,	4 00
2d best pr. of " " or " "	3 00
Best single horse, (gelding,) 4 years old and over,	3 00
2d best " " " " "	2 00
3d " " " " " "	1 00
Best single mare,	3 00
2d best single mare,	2 00
3d best single mare,	1 00

CLASS X.—SHEEP, SPANISH MERINO.

Judges.—Harrison Voorheis, White Lake; E. G. Deming, Oxford; Washington Stanley, Troy.

Best Spanish merino buck,	$4 00
2d best " " "	3 00
3d best " " "	2 00
Best 5 " ewes,	5 00
2d best 5 " "	3 00
3d best 5 " "	2 00

CLASS XI.—SHEEP, FRENCH MERINO.

Judges.—John Thomas, Oxford; William Davis, Troy; William Gage, Holley Mills.

Best French merino buck,	$4 00
2d best " " "	3 00
3d best " " "	2 00
Best 5 " ewes,	4 00

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2d best 5 French ewes, ... $3 00
3d " 5 " " 2 00

CLASS XII.—SHEEP, CROSS OF BLOOD.

Judges.—Luther Green, Farmington; Eber L. Taylor, Waterford; Samuel Rogers, Northville.

Best buck, ... $4 00
2d best buck, ... 3 00
3d best buck, ... 2 00
Best 5 ewes, ... 4 00
2d best 5 ewes, ... 3 00
3d best 5 ewes, ... 2 00

CLASS XIII.—FAT SHEEP.

Judges.—Samuel Hubbell, Pontiac; Henry Comstock, do.; George Randall, Birmingham.

Best lot of fat sheep, not less than 3, ... $3 00
2d best lot " " " 2 00

CLASS XIV.—SWINE.

Judges.—George Miller, Clarkston; John Chamberlin, Bloomfield; Harris Newton, Rochester.

Best boar, ... $4 00
2d best boar, ... 3 00
Best breeding sow, ... 4 00
2d best breeding sow, ... 3 00
Best litter of pigs not less than 5, ... 4 00
2d best " " " " 3 00

CLASS XV.—POULTRY.

Judges.—Joseph D. Yerkes, Novi; Wm. P. Draper, Pontiac; Eli Bristol, Troy.

Best and greatest variety, owned by exhibitor, ... $2 00
" lot Cochin China, not less than 3, (1 cock and 2 hens,) .. 1 00
" " Shanghai, " " " " ... 1 00
" " Brahma Pootra, " " " " ... 1 00
" " Chittagong, " " " " ... 1 00
" " bantam, " " " " ... 1 00
" " turkeys, " " " " ... 1 00

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Best lot ducks, not less than three, ... $1 00
" " geese, white, not less than three, ... 1 00
" " " grey, " " 1 00

CLASS XVI.—PLOWING MATCH.

Judges.—John Fisher, Clarkston; Moses V. Murlin, Pontiac; Aaron Webster, Avon.

WITH HORSES.

First premium, single team, 8 inches deep, any plow, ... $5 00
2d " " " " " " 3 00
3d " " " " " " 2 00

WITH OXEN.

First premium, single team, ... $5 00
2d " " " 3 00
3d " " " 2 00
First " double team, or any amount of team, ... 5 00
2d " " " " " " 3 00
3d " " " " " " 2 00
Boys under 18 years of age, with horses or oxen, 1st prem., .. 3 00
2d prem., ... 2 00

Double teams to plow ten inches deep, and single teams eight inches; time allowed to plow one fourth of an acre, one hour and a half.

The plowing match will take place at 11 o'clock A. M. on the second day.

CLASS XVII.—FARM IMPLEMENTS, &c.

Judges.—G. Porny, Novi; Zuriel Curtis, Rochester; James H. Murray, Farmington.

Best horse power, ... $7 00
" mowing machine, ... 5 00
" grain reaper, ... 5 00
" " thrasher and separator, ... 5 00
" " drill, ... 4 00
" farm wagon, ... 5 00
" two horse carriage for family use, ... 5 00
" one " " " 5 00
" horse cart, ... 3 00

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Best ox cart,	$2 00
" lumber sleigh,	3 00
" one horse sleigh,	3 00
" plow for deep plowing,	3 00
" " for general purposes,	3 00
" jointer plow,	1 00
" subsoil plow,	1 00
" ditching plow,	4 00
" bog cutter,	4 00
" clover mill,	3 00
" fanning mill,	3 00
" straw cutter,	3 00
" vegetable cutter,	3 00
" wheel cultivator,	3 00
" "A" "	2 00
" corn "	2 00
" " planter,	2 00
" harrow,	2 00
" horse rake,	2 00
" roller for general use,	2 00
" constructed gate,	2 00
" six hay forks,	2 00
" " grass scythes,	2 00
" " cradle "	2 00
" grain cradles,	1 00
" six hand rakes,	1 00
" dozen axes,	2 00
" " corn brooms,	1 00
" churn,	2 00
" washing machine,	2 00
" wash tub,	1 00
" pork barrel,	1 00
" ox yoke,	1 00
" set whiffletrees and neck yoke,	1 00
" shovel and spade,	1 00
" set bench planes,	1 00
" set augurs,	1 00

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Best set framing chisels,	$1 00
" adz,	1 00
" cooking stove,	4 00
" parlor "	2 00
" double carriage harness,	4 00
" " wagon "	4 00
" single carriage "	2 00
" saddle,	2 00
" bridle,	1 00
" sample of copper and tin ware,	2 00
" horse shoe tile and flat,	2 00
" pipe tile,	2 00

CLASS XVIII.—CABINET WORK.

Judges—David I. Prall, Pontiac; William Burbank, Rochester; Hiram Robinson, Clarkston.

Best specimen cabinet work,	$4 00
" six chairs,	2 00
" rocking chair,	1 00

CLASS XIX.—DOMESTIC MANUFACTURES.

Division 1.

Judges—W. M. McConnel, Pontiac; Moses G. Speare, Pontiac; Charles Davis, Pontiac.

Best pair thick pegged boots,	$1 00
" " " brogans,	1 00
" pair calf " boots,	1 00
" " sowed "	1 00
" pair ladies gaiter "	1 00
" " slippers,	1 00
" side of sole leather,	1 00
" " upper "	1 00
" calf skin,	1 00
" made coat,	2 00
2d best "	1 00
Best made vest,	1 00
2d best "	50
Best made pants,	1 00
2d best "	50

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Division 2.

Judges—Alba A. Lull, Pontiac; Mrs. Joseph D. Yerkes, Northville; Mrs. Van Valkenburgh, Highland; Mrs. A. Whitehead, Waterford; Mrs. Stephen Brown, Farmington; Mrs. E. P. Harris, Rochester.

Best pair woolen blankets,	$3 00
2d best "	2 00
Best 10 yards flannel,	3 00
2d best "	2 00
Best 10 yards flannel plaid,	3 00
2d best " "	2 00
Best 5 yards fulled cloth,	3 00
2d best " "	2 00
Best 10 yards woolen carpet,	4 00
2d best " "	3 00
Best 10 yards rag carpet,	3 00
2d best " "	2 00
Best 10 yards linen or tow cloth,	2 00
" hearth rug,	2 00
" pair knit silk stockings,	1 00
" " linen "	1 00
" " woolen "	1 00
" " cotton "	1 00
" " men's socks,	1 00
" sample woolen yarn not less than 1 pound,	1 00
" woolen shawl,	2 00
2d best "	1 00
Best coverlet,	3 00
2d best "	2 00

CLASS XX.—BUTTER, CHEESE, MAPLE SUGAR, HONEY, &C.

Judges—Judge Van Valkenburgh, Highland; Mrs. N. W. Clark, Clarkston; Mrs. Morgan L. Brooks, Novi; Mrs. Bradley, Waterford; Mrs. Asa Reynolds, Rose.

Best 5 lbs. butter in rolls,	$3 00
2d best " "	2 00
Best lot 50 lbs. butter,	5 00
2d best "	3 00

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CHEESE.

Best old cheese,	$3 00
2d best "	2 00
Best new cheese,	3 00
2d best "	2 00

MAPLE SUGAR, HONEY, &C.

Best 10 lbs. maple sugar,	$2 00
2d best " "	1 00
Best 10 lbs. honey,	2 00
2d best "	1 00
Best bee-hive,	1 00

BREAD.

Best 2 loaves baker's bread,	$1 00
" 2 loaves milk or salt rising bread,	1 00
" 2 loaves yeast " "	1 00
" 2 loaves soda " "	1 00
" sample brown or Graham "	1 00
" " corn bread,	1 00

CLASS XXI.—PAINTING, DRAWING, DAGUERREOTYPES, &C.

Judges—A. C. Baldwin, Pontiac; Mrs. Z. M. Mowery, Milford; Mrs. M. Wisner, Pontiac; Mrs. Peter Hogan, Pontiac; Mrs. Joseph A. Peck, Pontiac.

CLASS XXII.—NEEDLE, SHELL, WAX WORK, &C.

Judges—Robert B. Morris, Pontiac; Mrs. Oliver P. Davison, Highland; Mrs. Luther Green, Farmington; Mrs. J. R. Bowman, Pontiac; Mrs. G. W. Wisner, Pontiac.

Best ornamental needle work,	$2 00
2d best " "	1 00
Best ottoman cover,	2 00
2d best "	1 00
Best table cover,	2 00
2d best "	1 00
Best fancy chair work with needle,	2 00
2d best " "	1 00

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Best specimen worsted work,	$2 00
2d best " "	1 00
Best worked collar,	2 00
2d best "	1 00
Best lace cap,	2 00
2d best "	1 00
Best portfolio worked,	2 00
2d best "	1 00
Best silk bonnet,	2 00
2d best "	1 00
Best straw bonnet,	2 00
2d " "	1 00
Best 2 lamp mats,	1 00
2d best "	50
Best ornamental shell work,	2 00
2d best " "	1 00
Best group flowers,	1 00
2d best "	50
Best specimen wax flowers,	1 00
2d best " "	50
Best specimen artificial flowers other than wax,	1 00
2d best " " "	50
Best worked quilt,	3 00
2d best "	2 00
Best white worked quilt,	3 00
2d best " "	2 00

CLASS XXIII.—FLOWERS, &C.

Judges—Jas. T. Allen, Pontiac; Mrs. O. C. Morris, Pontiac; Judge Copeland, Pontiac; A. B. Cudworth, Pontiac; Mrs. W. M. McConnel, Pontiac.

DAHLIAS.

Best and greatest variety,	$2 00
2d " "	1 00
Best single dahlia,	1 00
Best 12 dissimilar blooms,	1 00
2d " "	50

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ROSES.

Best and greatest variety,	$2 00
2d " "	1 00
Best 12 dissimilar blooms,	1 00
Best and greatest variety of verbenas,	1 00
2d " " " "	50
Best " " indigenous flowers,	1 00
2d " " " "	50
Best 6 varieties of phlox,	1 00
2d " " "	50
Best collection of green house plants owned by one person,	2 00
2d " " " " "	1 00
Best hand boquet, flat,	1 00
2d " "	50
Best hand boquet, round,	1 00
2d " "	50
Best and most beautiful arranged basket of flowers,	1 00
2d " " " "	50

CLASS XXIV.—FRUIT.

Judges—Linus Cone, Troy; Mr. Bradley, Waterford; J. C. Morse, Highland.

Best 6 varieties good winter apples, 3 of each variety named and labelled, grown by exhibitor,	$2 00
2d best 6 varieties good winter apples, 3 of each variety named and labelled, grown by exhibitor,	1 00
Best 6 varieties of autumn apples, 3 of each variety named and labelled, grown by exhibitor,	2 00
2d best 6 varieties of autumn apples, 3 of each variety named and labelled, grown by exhibitor,	1 00
Best 12 specimens winter apples, single variety,	1 00
2d " " autumn " "	1 00

PEARS.

Best and greatest variety of good pears, named and labelled, grown by exhibitor,	$2 00
2d best and greatest variety of good pears, named and labelled, grown by exhibitor,	1 00

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Best collection of autumn pears, named and labelled, ... $1 00
Best 6 specimens of " 1 00

PEACHES.

Best 10 varieties, named and labelled, ... $2 00
" specimens, ... 2 00
Best seedling varieties, 6 specimens, with description, history, &c., 2 00
Best peck peaches, ... 2 00

PLUMS.

Best collection of plums, 6 specimens each, ... 2 00
Best 4 varieties " " " 3 00
Best seedling plums, with description, history, &c., ... 1 00

NECTARINES AND APRICOTS.

Best and greatest number of good varieties of each fruit, 6 specimens of each variety, ... $2 00
Best 6 specimens of any good variety, ... 1 00

QUINCES.

Best 12 quinces of good variety, ... $1 00
" peck " " 1 00

GRAPES.

Best and most extensive collection of good native grapes, grown in the open air, ... $2 00
Best dish of native grapes, grown in the open air, ... 1 00
Best and most extensive collection of foreign grapes, grown in the open air, ... 2 00
Best dish of foreign grapes, grown in the open air, ... 1 00
Best and most extensive collection of foreign grapes, grown under glass, ... 2 00
Best seedling grape, with a history of its origin, &c., ... 1 00

MELONS.

Best 2 specimens any variety of watermelons, ... $1 00
" " " muskmelons, ... 1 00
" " " nutmeg melons, ... 1 00

CITRON.

Best 2 specimens, ... $1 00

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CLASS XXV.—VEGETABLES.

Judges—Dr. Isaac Paddack, Pontiac; Asa B. Hadsell, Bloomfield; F. H. Killicut, Brandon.

Best three flat turnips,	$ 50
" blood beets,	50
" parsneps,	50
" carrots,	50
" onions,	50
" vegetable oyster, (salsify)	50
" heads of cabbage,	50
" " cauliflower,	50
" stocks of celery,	50
" vegetable eggs,	50
" tomatoes,	50
" squashes,	50
" pumpkins,	50
Best peck lima beans,	50
" windsor "	50
" peas,	50
" sweet potatoes,	50
Best half bushel "	50
" and greatest variety of culinary vegetables raised by one exhibitor,	2 00
" and greatest variety of roots for cattle,	1 00

CLASS XXVI.—GRAIN, FLOUR AND SEEDS.

Judges—Joseph J. Todd, Bloomfield; Sanford L. Murray, Highland; John M. Chamberlin, Addison.

Best sample of winter wheat, not less than 2 bushels,	$3 00
" " yellow corn, " " "	2 00
" " white " " " "	2 00
" " dent " " " "	2 00
" " black oats " " "	1 00
" " white " " " "	1 00
" " 12 ears of seed corn, any variety,	50
Best bushel of clover seed, (large)	4 00
" " " " (small)	4 00

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Best bushel of timothy seed,..... $1 00
" " flax " 1 00
Best sample of beans, not less than 2 bushels,..... 1 00
" " peas, " " " 1 00
Best barrel of flour made from the least quantity of wheat,.... 2 00
" " from any quantity of wheat,..... 2 00

All grain exhibited to be accompanied by satisfactory evidence to the judges that it is an average sample of the variety raised by the exhibitor.

CLASS XXVII.—FIELD CROPS.

Awards on field crops will be made by the executive committee at their annual meeting.

Best crop of wheat, not less than 2 acres, sample to be exhibited, $8 00
2d " " " " " " " 4 00
Best " Indian corn, " " " " 8 00
2d " " " " " " " 4 00
Best " barley, not less than 1 acre, " " " 4 00
2d " " " " " " " " " 2 00
Best " oats " " 2 acres, " " " 4 00
2d " " " " " 1 " " " " 2 00
Best acre of clover seed, " " " 4 00
" " timothy " " " " 4 00
Best half acre of potatoes, " " " 4 00
" " broom corn, " " " 4 00
Best quarter acre of carrots,..... 3 00
" " ruta bagas,..... 3 00

CLASS XXVIII.—FARMS AND GARDENS.

Committee to examine farms and gardens and report to the executive committee at their annual meeting.

Morgan L. Brooks, Novi; Rowland E. Trowbridge, Bloomfield; Jos. A Peck, Pontiac.

For the best cultivated farm, reference being had to cultivation, stock, improvement, expenses, products, &c., ... 25 00
2d best cultivated farm, reference being had to cultivation, stock, improvement, expenses, products, &c.,..... 15 00

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For the best cultivated garden, not less than one quarter of an acre, ... $15 00
2d best cultivated garden, not less than one quarter of an acre, 10 00

CLASS XXIX.—MISCELLANEOUS ARTICLES.

Judges.—I. I. Voorheis, Pontiac; Harry C. Andrews, Milford; John Comstock, Commerce.

RULES AND REGULATIONS.

No. 1. The Executive Committee will meet at the Secretary's office, on the fair ground, at 8 o'clock, A. M., on Wednesday, the first day of the fair.

No. 2. Members of the society, and all who become such at the time of the fair, will be furnished with tickets which will admit the person, his wife, and children under twenty-one years of age, at all times to the exhibition during the continuance of the fair.

No. 3. Single tickets 15 cents, admitting one person, will be for sale at the business office on the show ground.

No. 4. The several committees of judges must report themselves to the Executive Committee at the Secretary's office at 10 o'clock, A. M., on Wednesday.

No. 5. Articles entered for competition must be the property of a member of the society, or a member of his or her family under the age of 21 years, and be entered by 2 o'clock, P. M., on Wednesday, on the books of the society.

No. 6. Persons employed for the purpose and wearing appropriate badges will be in attendance to receive the articles intended for exhibition in their several departments, and a sufficient police will be on the ground to take care of all property deposited for exhibition, and the society will be responsible for its safe keeping.

No. 7. Exhibitors must be careful to place their numbers upon or near their articles, or animals, so that the judges will have no difficulty in finding them.

No. 8. Exhibitors must have the articles and animals on the ground ready for the examination of the judges at or before 2 o'clock, P. M., on Wednesday.

No. 9. No article entered for competition must be removed from the

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ground until 4 o'clock P. M. of the second day without leave of the Executive Committee.

No. 10. All competitors for premiums on farms and gardens must notify the Recording Secretary at Pontiac, by the 15th day of July next, of their intention to compete for premiums.

No. 11. Premiums on field crops, farms and gardens will be paid at the annual meeting on the first Tuesday of January next, and the exhibitor must give a written statement of the manner of raising and preparing the ground and a general statement of the process of raising the field crops.

No. 12. Where field crops are raised the land must be measured and verified by affidavit of the owner and one or more persons as to the harvesting, cleaning, and measuring of the entire crop on the piece entered for premiums. It must be measured in a true half bushel and a sample produced; and the corn crop must be shelled between the 15th of December and the 1st of January.

No. 13. No animals having heretofore taken the first premium at a county fair shall hereafter draw a premium, except in a higher class, but diplomas may be awarded to such animals in the discretion of the examining committee.

No. 14. Manufactured articles to compete for premiums must be manufactured in the county; but no premiums will be allowed or paid on articles that have received a premium at any former county fair.

No. 15. All animals and fowls having been owned and kept in the county four months previous to holding the fair shall have the privilege of competing for premiums. And in case any member of the society shall present for premiums any animal not owned by exhibitor, or any manufactured article which has not been made in the county and not owned by the exhibitor, he shall not be entitled to a premium, although awarded him, and shall be excluded from membership in this society.

No. 16. When there is but one exhibitor, and the animal or article is not worthy, no premium will be awarded, and in no case will premiums be awarded for an inferior article or animal. If any member of a committee shall compete for a premium on any article to be judged of by his committee he shall notify the Executive Committee of that fact on the day of the fair, and his notification of that fact shall disqualify him from acting on said committee, and his place shall be supplied by the Executive Committee.

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No. 17. The annual address will be delivered on the fair ground, at 2 P. M., on Thursday, immediately after which the report of the judges will be read.

By order of the Executive Committee.

A meeting of the Executive Committee of the Oakland County Agricultural Society was held at the fair ground in Pontiac, on Friday the 22d day of September, A. D., 1854, for the purpose of filling vacancies in the various committees, &c.

The judges on the various classes, after filling up all vacancies, are as follows:

Classes 1 and 2, Devons and Short Horns—Aaron Chapman, Calvin Green, and John Norton.

Class 3, Grade and Native—Isaac I. Voorheis, J. A. Peck and Jedediah Durkee.

Class 4, Working Oxen, Steers, &c.—E. V. Buchanan, A. Whitehead and Seymour Arnold.

Class 5, Foreign Stock—A. Whitehead, Zuriel Curtis, Seymour Arnold.

Class 6, Horses—Myron G. Cobb, John L. Brownell, Joel Loomis.

Class 7, Work Horses—Seyins P. Lyon, John J. Perkins, James D. Bateman.

Class 8, Sheep—T. W. Barbour, Alfred Phelps, Wm. Price.

Class 9, Swine—John Chamberlain, Clark Cogsdill, J. C. Gaylord.

Class 10, Poultry—A. W. Hovey, M. Wisner, E. P. Smith.

Class 12, Farming Implements—J. P. Wyckoff, Mason J. James, Ira Murlin.

Class 14, Domestic Manufactures—Rob't Thompson, John G. Crombie, Dr. J. M. Hoyt; 1st class. R. P. Bateman, Mrs. B. Phelps, Mrs. J. L. Brownell, Mrs. Hammond; 2d class.

Class 15, Butter, Cheese, &c.—Henry Waldon, A. A. Lull, Mrs. T. J. Drake, Mrs. G. Waters, Mrs. A. Spear.

Class 16, Painting, Drawing, &c.—R. Manning, J. Van Valkenburg, Jesse L. Stout.

Class 17, Needle, Shell, Wax Work, &c.—T. J. Drake.

Class 18, Flowers—A. C. Baldwin, Mrs. Z. B. Knight, Mrs. Smith, Miss Jane North, Miss Darrow.

Class 19, Fruit—Francis Darrow, Lyman Mattison, James Millerd.

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Class 20, Vegetables—E. W. Peck, Dr. P. H. Bissell, David Hammond.

Class 21, Flour, Grain and Seeds—Wm. A. Dennison, Sebring Voorhies, Rufus Hunter.

The Sixth Annual Fair of the Oakland County Agricultural Society was held pursuant to notice, at the fair ground in the village of Pontiac, on Thursday and Friday, the 21st and 22d days of September, A. D. 1854.

Owing to the season, the attendance at the fair was much less than last year, the number of exhibitors being 189 this year, against 230 last, and the number of articles and animals entered for exhibition being 502 this year, against 628 last year.

The articles entered for exhibition were classified as follows:

Horses,	62
Cattle,	59
Sheep,	32
Swine,	16
Jack,	1
Poultry,	9
Teams for plowing,	2
Grain,	17
Vegetables,	63
Field crops,	1
Farming utensils,	20
Domestic manufactures,	63
Butter,	10
Cheese,	4
Bread and crackers,	10
Honey,	3
Harness, saddles, &c.,	5
Lumber wagons,	2
Carriages,	2
Stoves,	4
Fruit,	52
Flowers,	19
Painting, Drawing, &c.,	9
Ornamental, Needle, and Shell Work,	21

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Boots and Shoes, ... 9
Wine, ... 3
Miscellaneous, ... 4

Total, ... 502

The annual address was delivered by the Rev. Geo. Duffield, of Detroit, at 3 o'clock P. M. of the second day of the fair; after which it was

Resolved, That the thanks of the Society be tendered to the Rev. George Duffield, for his able and eloquent address, to which we have just listened; and that he be requested to furnish a copy of the same for publication.

The reports of the several examining committees were then read, and the following premiums were awarded:

LIST OF PREMIUMS

Awarded at the late County Fair, held on the 21st and 22d days of September, A. D. 1854.

CLASS I.—CATTLE, SHORT HORNS.

No. 56.	Best bull,	3 years old or over,		M. L. Brooks,	$6 00
No. 176.	"	2	"	" J. L. Waldron,	4 00
No. 57.	Best cow,	3	"	" M. L. Brooks,	5 00
No. 69.	2d "	3	"	" "	4 00
No. 59.	Best heifer,	2	"	"	4 00
No. 58.	2d "	2	"	A. S. Brooks,	2 00
No. 208.	3d "	2	"	Mrs. G. W. Wisner,	1 00
No. 63.	Best	1	"	M. L. Brooks,	3 00
No. 64.	2d "	1	"	"	2 00
No. 62.	3d "	2	"	"	1 00
No. 68.	Best heifer calf,			"	2 00

CLASS II.—DEVONS.

No. 203.	Best Devon bull,			Riley C. Cone,	$6 00
No. 420.	"	"	calf,	J. L. Brownell,	2 00
No. 419.	"	"	"	"	1 00

CLASS III.—CATTLE, GRADES AND NATIVES.

No. 70.	Best bull,	3 years old or over,		C. Yerkes,	$5 00
No. 279.	"	2	"	" I. K. Middlesworth,	4 00

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No. 74. Best bull 1 year old or over, Edwin Hazen, ... $3 00
No. 355. 2d " 1 " " C. A. Green, ... 2 00
No. 168. 3d " 1 " " I. Voorhies, ... 1 00
No. 99. " calf, J. Thorp, ... 2 00
No. 343. 2d " " Nathan Davis, ... 1 00
No. 502. Best cow, 3 years old or over, O. Chamberlin, ... 5 00
No. 128. 2d " " 3 " " " S. M. Leggett, ... 4 00
No. 98. 3d " " 3 " " " J. Thorp, ... 2 00
No. 8. Best heifer, 2 " J. G. Crombie, ... 4 00
No. 173. 2d " " 2 " J. L. Stout, ... 3 00
No. 342. " " 1 " Nathan Davis, ... 3 00
No. 175. " " calf, J. L. Stout, ... 2 00
No. 452. 2d " " " John Springer, ... 1 00

CLASS IV.—WORKING OXEN, STEERS AND FAT CATTLE.

No. 166. Best yoke working oxen, 5 years old & over, P. Stiles, $5 00
No. 4. 2d " " " " " J. Loomis, 4 00
No. 121. 3d " " " " " W. D. Horton, ... 3 00
No. 209. Best yoke 4 years old steers, A. Whitehead, ... 4 00
No. 240. 2d " 4 " " Jedediah Durkee, ... 3 00
No. 167. " 3 " " Isaac Voorhies, ... 3 00
No. 282. " 2 " " Ira C. Seeley, ... 3 00
No. 241. " 1 " " Jedediah Durkee, ... 2 00
No. 445. Best pair fat cattle, Jacob Loomison, ... 5 00

CLASS V.—FOREIGN STOCK.

No. 302. Best French merino buck, superior to any foreign sheep exhibited on the ground, N. S. Schuyler, ... 4 00
No. 551. Best stallion, (Jackson) Backus & Eldred, ... 4 00

CLASS VI.—HORSES.

No. 141. Best stallion, 5 years old and over, H. Swan, ... $6 00
No. 142. 2d " " " " A. G. Dewey, ... 4 00
No. 500. 3d " " " " Wm. Allen, ... 3 00
No. 271. " 4 " " J. T. Griffin, ... 4 00
Best brood mare with foal at foot, ... 5 00
No. 416. 2d " " " " R. Thompson, ... 4 00
No. 455. 3d " " " J. P. Wyckoff, ... 2 00

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No. 202. Best 3 years old colt, James Todd, ... $4 00
No. 152. 2d " " " H. Voorhies, ... 3 00
No. 88. 3d " " " Wm. Cahoon, ... 2 00
No. 76. Best 2 " " A. Knapp, ... 3 00
No. 498. 2d " " " James Bailey, ... 2 00
No. 221. Best 1 " " A. Cloyes, ... 2 00
No. 415. 2d " " " B. B. Monroe, ... 1 00
No. 399. 1 sucking colt, very fine, without its mother, recommended for a premium, D. C. Killam.

CLASS VII.—WORK HORSES.

No. 109. Best farm team, Jas. Bailey, ... $6 00
No. 9. 2d " " John G. Crombie, ... 4 00
No. 327. 3d " " J. I. Cole, ... 3 00
No. 467. Best gelding or mare over 4 years old, O. C. Morris, 4 00
No. 257. 2d " " " " " J. Chamberlin, 3 00
No. 127. Best pair of carriage horses, over 4 years old, S. M. Leggett, ... 6 00
No. 223. 2d best pair carriage horses, over 4 years old, J. M. Norton, ... 4 00
No. 179. 3d best pair carriage horses, over 4 years old, George German, ... 3 00
No. 100. Best single horse, mare or gelding, over 4 years old, A. A. Lull, ... 3 00
No. 337. 2d best single horse, mare or gelding, over 4 years old, R. B. Morris, ... 2 00

CLASS VIII.—SHEEP.

No. 259. Best Spanish merino buck, A. C. Walker, ... $4 00
No. 303. 2d " " M. S. Schuyler, ... 3 00
No. 348. 3d " " C. A. Green, ... 2 00
No. 350. Best 5 Spanish merino ewes, " 5 00
No. 307. 2d " " " N. S. Schuyler, ... 3 00
No. 6. 3d " " " F. A. Williams, ... 2 00
No. 302. Best French Merino buck, N. S. Schuyler, ... 4 00
No. 346. 2d " " " C. A. Green, ... 3 00

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CLASS IX.—SWINE.

No. 192. Best boar, John German, ... $4 00
No. 2. 2d " Joel Loomis, ... 3 00
No. 193. Best breeding sow, John German, ... 4 00
No. 1. 2d " " Joel Loomis, ... 3 00
No. 3. Best litter of pigs, " 4 00
No. 238. 2d " " Wm. E. Pier, ... 3 00
No. 439. 1 boar, Samuel Rood, ... dis. prem.
No. 441. 5 pigs, " ..... dis. prem.
No. 10. 1 boar, John G. Crombie, ... dis. prem.
No. 12. 13 pigs, " ..... dis. prem.

CLASS X.—POULTRY.

No. 13 to 16. Best and greatest variety owned by one exhibitor, J. G. Crombie, ... $2 00
No. 130. Best lot Cochin Chinas, Jas. T. Allen, ... 1 00
No. 14. " Shanghais, J. G. Crombie, ... 1 00
No. 311. Best (only) lot of turkies, N. S. Schuyler, ... 1 00
No. 228. Coop of Shanghai chickens, 12 weeks old, R. P. Bateman, ... dis. prem.
No. 460. Coop of young Guinea fowls, J. P. Wycoff, ... dis. prem.

CLASS XII.—FARM IMPLEMENTS.

No. 242. Best grain drill, S. V. Hakes & Co., ... $4 00
No. 428. " farm wagon, E. J. Dusenbury, ... 5 00
No. 197. " one horse carriage, Charles Parsons, ... 5 00
No. 198. " two " " 5 00
No. 245. " plow for deep plowing, S. V. Hakes & Co., ... 3 00
No. 244. " " general purposes, " 3 00
No. 216. " jointer plow, A. Smith & Son, ... 1 00
No. 107. " straw cutter, Henry W. Lord, ... 3 00
No. 334. " wheel cultivator, R. B. Morris & Co., ... 3 00
No. 335. " "A." cultivator, " 2 00
No. 336. " corn " " 2 00
No. 367. Best corn planter, James Andrews, ... 2 00
No. 357. Best horse rake, S. H. & N. T. Thurber, ... 2 00
No. 21. " washing machine, Prall & Tutthill, ... 2 00
No. 359. " copper ware, S. H. & N. T. Thurber, ... 2 00

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No. 360. Best parlor stove, S. H. & N. T. Thurber, ... $2 00
No. 125. " bridle, Charles Brodie..... 1 00
No. 123. " double wagon harness, C. Brodie,..... 4 00
No. 122. " double carriage harness, " 4 00
No. 163. " single carriage harness, A. C. High,..... 2 00
No. 372. " horse shoe file and flat, Jno. Daines,..... 2 00
No. 372. " pipe tile, Jno. Daines,..... 2 00
No. 205. " flour barrel, Ambrose Hoffman,..... 1 00

CLASS XIV.—DOMESTIC MANUFACTURES.

No. 375. Best pair thick pegged boots, Campbell & Goodale,.. $1 00
No. 379. " pair calf pegged boots, " .. 1 00
No. 374. " pair calf sewed boots, " .. 1 00
No. 376. " pair ladies' gaiter boots, " .. 1 00
No. 378. " pair ladies' slippers, " .. 1 00
No. 92. " pair woolen blankets, Mrs. I. I. Voorheis,..... 3 00
No. 479. 6 yards plaid flannel, Mrs. J. Durkee, ...dis. premium.
No. 102. Best 10 yards rag carpet, Mrs. Cyrus Hadsell,..... 3 00
No. 81. " pair linen stockings, Mrs. Chas. Baldwin, ... 1 00
No. 190. " pair woolen stockings, Mrs. Wm. A. Denison,.. 1 00
No. 366. 2d best " Mrs. J. L. Stout, ...dis. prem.
No. 365. Best pair woolen socks, Mrs. J. L. Stout,..... 1 00
No. 191. Pair woolen socks, Mrs. Wm. A. Denison,.....dis. prem.
No. 413. Pair woolen socks, Mrs. L. Beach, ...dis. prem.
No. 387. Best pair cotton stockings, Miss Susan Voorheis,.... 1 00
No. 100. Pair cotton stockings, Mrs. C. Hadsell, ...dis. prem.
No. 226. Best sample 1 lb. woolen yarn, Mrs. W. Denison,.... 1 00
No. 140. Best coverlet, A. W. Van Doren,..... 3 00
No. 138. 2d best coverlet, " 2 00

CLASS XV.—BUTTER, CHEESE, MAPLE SUGAR, HONEY, &C.

No. 400. Best 5 lbs. butter in rolls, Mrs. Wm. R. Jones,..... $3 00
No. 493. 2d best 5 lbs. " Mrs. L. Voorheis,..... 2 00
No. 204. 5 lbs. butter in rolls, Mrs. I. Merlin, ...dis. prem.
No. 253. " " Mrs. J. C. Gaylard, ...dis. prem.
No. 199. " " Mrs. J. Windiate, ...dis. prem.
No. 174. " " Mrs. Levi Burlingham, ...dis. prem.
No. 280. " " Mrs. Ira C. Seeley, ...dis. prem.

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No. 200. Best lot 50 lbs. butter, Mrs. John Windiate, ... $3 00
No. 273. " old cheese, J. H. Murray, ... 3 00
No. 90. " new cheese, Mrs. Ira Murlin, ... 3 00
No. 274. 2d best new cheese, J. H. Murray, ... 2 00
No. 463. Best 10 lbs. honey, Henry Waldron, ... 1 00
No. 462. 2d best " J. P. Wyckoff, ... 50
No. 323. Best 2 loaves baker's bread, J. T. Crawford, ... 1 00
No. 19. " 2 loaves milk or salt rising bread, Mrs. M. Wisner, 1 00
No. 165. Best two loaves yeast rising bread, Mrs. Levi Burlingham, ... 1 00

CLASS XVI.—PAINTING, DRAWING, DAGUERREOTYPES, &C.

No. 483. Best specimen painting in water colors, Miss Richardson, ... $3 00
No. 484. 2d best specimen of painting in water colors, Miss Richardson, ... 2 00
No. 444. Best daguerreotypes, C. T. White, ... 2 00

The committee find no premium on the list for monochromatic paintings; a number are on exhibition; we would recommend a discretionary premium to Miss Maria Smith.

CLASS XVII.—NEEDLE, SHELL, WAX WORK, &C.

No. 165. Best ornamental needle work, Mrs. J. T. Allen, ... $2 00
No. 389. 2d best " " Miss Jane Crowfoot, ... 1 00
No. 146. Best ottoman cover, Mrs. J. T. Allen, ... 2 00
No. 489. 2d best " Mrs. O. F. North, ... 1 00
No. 443. Best table cover, Mrs. Olive Taylor, ... 2 00
No. 362. " fancy chair work, Miss L. Beach, ... 2 00
No. 233. " specimen worsted work, Mrs. Gough, ... 2 00
No. 234. 2d best " " " 1 00
No. 87. Best worked collar, Miss Amelia Peck, ... 2 00
2d best " Mrs. Burlingham, ... 1 00
No. 401. Best lace cape, Mrs. John W. Leonard, ... 2 00
No. 235. " portfolio worked, Mrs. Gough, ... 2 00
2d best portfolio worked, Mrs. Gough, ... 1 00
No. 408. Best silk bonnet, Miss Anna D. Benson, ... 2 00
No. 330. " 2 lamp mats, Mrs. Geo. W. Wisner, ... 1 00
No. 496. 2d best " Miss J. North, ... 50

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No. 115. Best worked quilt, Mrs. J. E. Taylor, ... $3 00
No. 312. 2d best " Mrs. N. S. Schuyler, ... 2 00
No. 210. Best white quilt, Mrs. A. Whitehead, ... 3 00
No. 211. 2d best " " 2 00

A large number of discretionary premiums are recommended by the committee, on this class, which will be published as soon as acted upon by the executive committee.

CLASS XVIII.—FLOWERS.

No. 397. Best single dahlia, Mrs. A. A. Lull, ... $1 00
No. 398. " and greatest variety of verbenas, Mrs. A. A. Lull, 1 00
No. 328. 2d " " Mrs. G. W. Wisner, 50
No. 329. Best hand boquet, flat, Mrs. Geo. W. Wisner, ... 1 00
No. 396. " " round, Mrs. A. A. Lull, ... 1 00
No. 414. 2d best " round, Miss Lucy Beach, ... 50
No. 184. Best and most beautiful arranged basket of flowers, Mrs. J. L. Brownell, ... 1 00
No. 388. 2d best and most beautiful arranged basket of flowers, Mrs. S. M. Leggett, ... 50

CLASS XIX.—FRUIT.

No. 263. Best and greatest variety of good winter apples, named and labelled, grown by exhititor, Linus Cone, ... $2 00
No. 132. 2d best and greatest variety of good winter apples, named and labelled, grown by exhibitor, James T. Allen .. 1 00
No. 255. Best and greatest variety of autumn apples, named and labelled, grown by exhibitor, John Chamberlain, ... 2 00
No. 148. 2d best and greatest variety of autumn apples, named and labelled, grown by exhibitor, I. W. Ruggles, ... 1 00
No. 466. Best 12 specimens of winter apples, single variety, Henry Waldron, ... 1 00
No. 148. Best 12 specimens of autumn apples, single variety, I. W. Ruggles, ... 1 00
No. 135. Best and greatest variety of good pears, James T. Allen, ... 2 00
No. 149. 2d best and greatest variety of good pears, Isaac W. Ruggles, ... 1 00
No. 339. Best collection of autumn pears, Samuel Rood, ... 1 00

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No. 482. Best 6 specimens of autumn pears, Joseph A. Peck, $0 50
No. 285. Best 10 varieties of peaches, Cha's Elliott, ... 2 00
No. 383. " 10 specimens " Isaac Osmun, ... 2 00
No. 254. " peck of peaches, J. C. Gaylord, ... 2 00
No. 286. " collection of plums, 6 specimens, Cha's Elliott, .. 2 00
No. 206. " 12 quinces, Benj. Phelps, ... 1 00
No. 93. " collection of native grapes, Mrs. O. D. Richardson, ... 2 00
No. 101. Best dish of grapes, A. A. Lull, ... 1 00
No. 316. " collection of foreign grapes, Jos. Coates, ... 2 00
No. 290. " dish of " O. Brownson, ... 1 00
No. 23. " (Jenny Lind) melon, J. M. Leggett, ... 50
No. 289. " watermelon, Oscar Brownson, ... 50
No. 34. " muskmelon, S. M. Leggett, ... 1 00
No. 35. " nutmeg melon, " 1 00
No. 17. " 2 specimens of citron, Moses Wisner, ... 1 00
No. 372. 1 bottle currant wine, John Daines, ... dis. premium.
No. 154. " " Mrs. H. A. Rood, ... dis. prem.
No. 423. " " D. Hubbard, "

CLASS XX.—VEGETABLES.

No. 288. Best 3 flat turnips, Oscar Brownson, ... $0 50
No. 231. " 3 blood beets, Tho's Davis, ... 50
No. 33. " 3 parsneps, S. M. Leggett, ... 50
No. 267. " 3 carrots, Linus Cone, ... 50
No. 294. " 3 onions, M. Cross, ... 50
No. 266. " 3 vegetable oysters, Linus Cone, ... 50
No. 158. " 3 heads cabbage, Cha's Callow, ... 50
No. 44. " 3 stalks celery, S. M. Leggett, ... 50
No. 26. " 3 vegetable eggs, " 50
No. 28. " 3 tomatoes, " 50
No. 50. " 3 squashes, " 50
No. 421. " 3 pumpkins, Ira C. Seeley, ... 50
No. 293. " peck peas, M. Cross, ... 50
No. 324. " " sweet potatoes, J. B. Corey, ... 50
No. 229. " half bushel " Tho's Davis, ... 50
" and greatest variety of culinary vegetables, raised by one exhibitor, S. M. Leggett, ... 2 00

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No. 265. Best and greatest variety of roots for cattle, Linus Cone, ... $1 00

CLASS XXI.—GRAIN, FLOUR AND SEEDS.

No. 169. Best sample 2 bushels of winter wheat, Geo. P. Thurstin, ... $3 00

No. 18. Best 12 ears of seed corn, Moses Wisner, ... 50

The Executive Committee then adjourned to meet at the court house in the village of Pontiac on the 7th day of October next ensuing at 10 o'clock in the forenoon.

J. R. BOWMAN,
Recording Secretary.

—

At a meeting of the Executive Committee of the Oakland County Agricultural Society held at the court house in the village of Pontiac on the 7th day of October, A. D. 1854, present,

Joseph R. Bowman, *Recording Secretary.*

Linus Cone, Nelson W. Clark, James Bailey, Hiram Barritt and George H. Satterlee, *Executive Committee.*

The President being absent, Linus Cone was elected President *pro tem.*

The following accounts were then allowed, viz:

Prall & Tuthill, for lumber, &c., and building buildings on fair ground, ...	$355 41
Bowman & Wisner, for incidental expenses of fair, ...	69 49
Phelps & Stevens, for printing, ...	34 50
Joseph A. Peck, for provender, &c., ...	22 07
	$481 47

Resolved, That the discretionary premiums lay upon the table until the annual meeting.

Resolved, That Moses Wisner and John P. LeRoy, the committee having charge of the fair ground, cause the same to be plowed and leveled in good order and seeded, provided the crop will pay all the expenses for doing the same.

Resolved, That the President and Secretary draw an order on the

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treasury in favor of the bearer for the sum of $300, at 10 per cent. interest, to pay the premiums allowed at the annual fair; said order to be made payable on the 15th day of February next ensuing, provided they can loan money until that time.

The Board then adjourned until the 2d day of January next ensuing, to close up the business of the present year.

LINUS CONE,
Pres't pro. tem.

J. R. BOWMAN, *Rec. Sec.*

The Executive Committee met pursuant to adjournment at the court house in Pontiac on Tuesday, the 2d day of Jauuary, A. D. 1855, when The following communication was received from Samuel E. Beach, Esq., the Treasurer of the society, which was read, accepted and adopted:

PONTIAC, Jan. 2, 1855.

To the President of the Oakland County Agricultural Society:

SIR—I send you herewith my annual report of the financial condition of the Oakland County Agricultural Society, showing a balance in my hands, at this date, of $111 30. In addition, there is due from Isaac Cuskey, for rails sold, $5.

Yours, &c.,
SAM'L E. BEACH,
Treasurer O. C. Agricultural Society.

Samuel E. Beach, in account with Oakland County Agricultural Society.

1854.		Dr.
Jan'y 4,	To amount received from A. W. Hovey, late Treas.,	$21 31
Feb. 11,	" " Co. Treas.,	861 79
Oct. 7,	" " C. W. Tuthill, on judgment,	42 40
Oct. 7,	To amount received from membership and admission tickets,	313 52
Oct. 18,	To am't loaned per resolution of Executive Com.,	300 00
		$1,539 02

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1854. CONTRA, CR.

Jan. 3,	By amount paid charges on books,			$0 38
March 20,	" "	John Lockwood, cartage, &c.,		25
April 20,	" "	Wm. M. Thomson, printing,		2 50
Feb. 7,	" "	on order of committee,	$440 00	
May 17,	" "	" "		
	for balance on lot, grading, &c., and grass seed and plaster,		89 00	
				529 00
Sept. 18,	By amount paid Prall & Tuthill,		$50 00	
" 25,	" "	" "	250 00	
Oct. 7,	" "	" " for build-		
	ings on fair grounds, &c.,		55 41	
				355 41
Oct. 7,	By amount paid Wisner & Bowman, for incidental expenses of fair, as per account allowed,			69 49
Oct. 9,	By amount paid Phelps & Stevens, printing bill,			34 50
Oct. 10,	" "	Joseph A. Peck, hay, &c.,		22 07
1855.				
Jan'y 2,	By amount paid on premiums,			412 12
"	"	of broken banks and bad money,		2 00
"	"	of cash on hand,		111 30
				$1,539 02

1855.

Jan'y 2, To balance on hand, 111 30

On motion, allowed Wm. Albertson his account for drawing lumber, $1 50.

Resolved, That Andrew Coates be allowed the premium of three dollars for the best one-quarter of an acre of rutabagas.

The following is the statement upon which the above award was made, viz:

Statement relative to the product of an acre of ruta bagas raised by Alfred Coates, Pine Lake, 1854.

The land, a strong loam with a grass sod, was plowed in May, having previously been manured with barn yard manure, worked well with the cultivator and harrow, with a top dressing of ashes on a part of the land. The seed was sown broadcast about the 20th of June and covered with

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a brush harrow. The plants came up good, but were checked in their growth by the drought of summer, and partially injured by the fly. They were kept clean by twice hoeing; with the fall rains they grew rapidly and were in a growing state when taken up.

One quarter of an acre was accurately measured off by the chain, and the product was 121 bushels, which gives 584 bushels for the acre.

I certify that the above statement is true.

ALFRED COATES.

Having assisted in cultivating and securing the crop, I certify that the above statement is true.

JOSEPH COATES.

Personally appeared before me, this 1st day of January, 1855, Alfred Coates and Joseph Coates who made oath that the above statement was true.

JOHN ELLMWOOD,
Justice of the Peace.

Resolved, That the discretionary premiums lay upon the table until the next meeting of the executive committee.

Adjourned *sine die.*

CHARLES BALDWIN,
President.

JOSEPH R. BOWMAN, *Rec. Secretary.*

The whole amount of premiums awarded by the executive committee for the year 1854, to be paid in cash, is $460 00, being an increase over last year of $54 25.

The amount of money received by the society from the board of supervisors, being the amount of the 1-10th of a mill on the total valuation of the county, required by law to be raised for agricultural purposes is $861 79.

The society now own six acres of land, with permanent and suitable buildings, well adapted for the purposes of the society, upon which they have expended, during the year, the sum of $884 51, which will dispense with the large yearly outlay to which the society has heretofore been subjected on account of temporary buildings.

The society has been in existence six years and may now be considered as permanently established among the institutions of the county,

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and we have too good an opinion of the intelligence of the farmers of Oakland, for whose benefit the society is established, to think for a moment that they will permit it to languish and die. We say then to the farmers and other friends of the society, rally around it, attend the meetings of your executive committee, advise and counsel with them, and you will then be proud of the high position taken by the Agricultural Society of the county of Oakland.

In conclusion, permit me to make the following extracts from our village papers:

[From the Oakland Gazette.]

COUNTY FAIR.—The attendance upon the fair this season was much less than usual, and the contribution of articles for exhibition was also less than in former years. We account for this upon the ground that the fair being some two weeks earlier in the season than usual, and the farmers being rather late, and just in the midst of their seeding, many of them are reluctantly debarred the privilege they would otherwise undoubtedly take, of attending.

Seeding is later than usual, on account of the dry weather that prevailed up to two weeks ago.

But we are free to say that the quality of articles on exhibition was never better than this year. The fair is therefore good.

COUNTY FAIR.—Much credit is due to Messrs. Wisner and Bowman, for the efficient manner in which they performed their duties as committee in the arrangement and conduct of the fair this year. Everything was in its place, and we believe, was secure from depredation. The other officers, clerks, police, &c., were all watchful and efficient.

Last year there was much complaint; but this year all ground for fault finding was obviated. Exhibitors need not fear that a recurrence of the scenes of last year will be re-enacted at any of our county fairs, as the society are determined that the goods brought for exhibition shall be safe, and restored to the proper owners in good condition. We have heard of nothing to the contrary at the recent fair—unless it was the consumption of *all the wine* exhibited. There are some *gentlemen* who prowl around our fairs for the purpose of *sponging* a treat to this pleasant beverage—*we believe.*

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[From the Pontiac Jacksonian.]

THE COUNTY FAIR.—The sixth annual fair of the Oakland County Agricultural Society, was held at this place on Thursday and Friday of last week. The articles on exhibition and the persons in attendance were less than on several previous years, but were as great, and the fair was in all respects, as complete as could be expected under the circumstances. The fair was too early. The drouth, an event which could not have been foreseen, has delayed our farmers at least two weeks, and very many of them were in the midst of seeding and could not possibly spend the time to attend it.

While the number of competitors and the variety of productions are less, the quality of the articles on exhibition has not been surpassed. The drouth has had a very injurious effect upon the crops all over the country, and has done much damage in this county, but we believe much less than was feared and supposed.

We cannot conclude a notice of the fair without commending those officers of the society upon whom devolved the duty and responsibility of making arrangements for the fair. Everything was complete. The grounds were in the finest condition. The buildings were just what they should be, and every accommodation was ample. The executive committee and Mr. Bowman, the Secretary, labored untiringly, that all the arrangements might be perfect, and they did not labor in vain. The fair, all things considered, was a good one and better managed than its predecessors.

JOSEPH R. BOWMAN,
Rec. Seretary.

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ST. JOSEPH COUNTY.

To J. C. HOLMES, ESQ., *Sec'y Mich. State Agricultural Society.*

The annual meeting of the St. Joseph County Agricultural Society was held at the Court House Hall, in Centreville, on the 28th day of March, 1854, J. B. Dimick in the chair.

The following persons were elected to fill the various offices of the society for the ensuing year:

Comfort Tyler, President.

Joel Redway, Vice President.

Wm. McCormick, Treasurer.

Cyrus Foreman, Recording Secretary.

C. H. Starr, Corresponding Secretary.

Jos. B. Millard, P. C. Lown, Jos. Horton, A. R. Metcalf, and E. Chapin, *Managers.*

The constitution was then amended so as to admit members during the ensuing year for fifty cents.

On motion,

The executive committee was authorized to pay the Rec. Secretary an adequate sum for his services.

On motion,

Ordered that the proceedings of this meeting be published in all the papers in this county.

Agreed that the executive committee meet on the 8th day of May next, to prepare a list of rewards.

Adjourned.

CYRUS FOREMAN, *Sec'y.*

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On the 8th day of May, 1854, executive committee met at the Court House, Comfort Tyler in the chair.

On motion,

Decided to buy 20 acres of land of George Talbot, for fair ground. Wm. McCormick, C. H. Starr and Joel Redway, were chosen as a committee to consummate a bargain for said piece of land.

Samuel F. Goss, Wm. McCormick and Wm. Laffey, were chosen a committee for fencing said fair ground.

Comfort Tyler, Mark H. Wakeman and E. Chapin, were chosen a committee to draft a list of premiums.

Decided that the next County Fair be held on the 4th and 5th days of October next.

Adjourned until June 10th, 1854.

CYRUS FOREMAN, *Sec'y.*

—

On the 10th day of June, 1854, the executive committee met at the Court House, and adopted the list of premiums reported by the committee elected for that purpose, and the meeting was then adjourned until August 26th, 1854.

CYRUS FOREMAN, *Sec'y.*

—

August 26th, 1854, the Executive committee met at the Court House, and confirmed the purchase of a Fair Ground, from Geo. Talbot, made by a committee chosen for that purpose. The list of premiums previously adopted for the present year, being altered so as to read as follows, were ordered published, together with the following rules and regulations.

Meeting adjourned.

CYRUS FOREMAN, *Sec'y.*

—

FARMS.

Best opening farm,	$5 00
2d best "	3 00
Best prairie farm,	5 00
2d best "	3 00

Judges.—Alvin Hoyt, Lockwood Matthewson, Joseph Russell.

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CLASS I.—CATTLE, SHORT HORNS.

Best bull 3 years old or over,	$5 00
2d " 3 " "	3 00
Best bull 2 "	4 00
2d " 2 "	2 00
Best bull 1 "	3 00
2d " 1 "	Vol. Trans.
Best bull calf,	3 00
2d best "	Vol. Trans.
Best cow 3 years old or over,	5 00
2d " 3 " "	3 00
Best heifer 2 "	4 00
2d " 2 "	2 00
Best heifer 1 "	3 00
2d " 1 "	Vol. Trans.
Best heifer calf,	3 00

CLASS II.—DEVONS.

Premiums the same as for short horns.

CLASS III.—CROSS BETWEEN SHORT HORNS AND DEVONS.

Premiums the same as classes No. 1 and 2.

CLASS IV.—GRADES AND NATIVES.

Premiums the same as class No. 1.

CLASS V.

Best pair of oxen,	$5 00
2d " "	3 00
Best pair of steers 3 years old,	5 00
2d " " 3 "	3 00
Best pair " 2 "	4 00
2d " " 2 "	2 00
Best pair " 1 "	3 00
2d " " 1 "	Vol. Trans.
Best pair " calves,	2 00
2d " " "	Vol. Trans.

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CLASS VI.—CATTLE OWNED OUT OF THE COUNTY.

Best bull 3 years old or over,	$5 00
" under 3 years old,	5 00
Best cow 3 years old or over,	5 00
" heifer 2 " or under,	5 00

Judges.—Henry K. Farrand, Milo Powel, L. F. Olmstead.

CLASS VII.—HORSES, FOR ALL WORK.

Best stallion 4 years old or over,	$5 00
2d " 4 " "	3 00
Best stallion 3 "	5 00
2d " 3 "	3 00
Best stallion 2 "	3 00
2d " 2 "	2 00
Best stallion, 1 year old,	Vol. Trans. & 1 00
2d best " " "	Vol. Trans.
Best sucking colt,	2 00
2d " "	Vol. Trans.
Best brood mare,	5 00
2d " "	3 00
Best mare 3 years old,	3 00
2d " " "	2 00
Best mare 2 years old,	3 00
2d " " "	2 00
Best mare 1 year old,	1 00
2d " " "	Vol. Trans.

CLASS VIII.—BLOOD HORSES.

Best stallion, 4 years old or over,	$5 00
2d best " " "	3 00
Best brood mare and colt,	5 00
2d best " "	3 00
Best stallion, 3 years old,	5 00
2d best " "	3 00
Best mare, 2 "	3 00
2d best " "	2 00
Best stallion, 2 "	2 00
2d best " "	1 00

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Best mare, 2 years old,	$2 00
2d best " "	1 00
Best stallion, 1 "	Vol. Trans. & 1 00
2d best stallion, 1 "	Vol. Trans.
Best mare, 1 "	1 00
2d best " "	Vol. Trans.

CLASS IX.—FARM HORSES, TO BE SHOWN IN HARNESS.

Best farm team,	$5 00
Matched and single horses, 2d best,	3 00
Best span of mares or geldings,	5 00
2d best " " "	3 00
Best single horse or mare,	5 00
2d best " "	3 00

Judges.—Henry T. Williams, Samuel F. Goss, George L. Camber.

CLASS I.—SHEEP, FRENCH.

Best buck, 2 years old or over,	$5 00
2d best " " " "	3 00
Best buck, 1 year old,	2 00
2d best " " "	1 50
Best pen of 3 ewes, 2 years old or over,	5 00
2d best " " " " "	3 00
Best pen of 3 ewes, 1 year old,	3 00
2d best " " " "	2 00
Best buck lamb,	2 00
2d best "	Vol. Trans.
Best pen of 3 ewe lambs,	3 00
2d best " " "	2 00

CLASS II.—SPANISH.

Premiums the same as Class 1.

CLASS III.—CROSS BETWEEN THE FRENCH AND SPANISH.

Premiums the same as Classes 1 and 2.

CLASS IV.—LONG WOOL.

Premiums the same as Class 1.

CLASS V.—GRADES AND NATIVES.

Premiums the same as Class 1.

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Judges.—Mark H. Wakeman, Phineas Farrand, Benjamin Perrin.

HOGS.

Best boar, 2 years old or over,	$3 00
2d best " " "	2 00
Best sow, 2 years old or over,	3 00
2d best " " "	2 00
Best boar, 1 year old,	2 00
2d best " "	1 50
Best sow, 1 year old,	2 00
2d best " "	1 50
Best pair of pigs over 6 months old and less than one year,	2 00
2d best " " " " " "	1 50
Best lot of pigs, not less than 5, under 6 months old,	3 00
2d best " " " " " "	1 50

Judges.—O. F. Howard, H. J. Cushing, M. P. Thurston.

POULTRY.

Best pair of turkeys,	$1 00
" " geese,	1 00
" " pea fowls,	1 00
" " Shanghais,	2 00
" " Cochin Chinas,	2 00
" " Dorkings,	2 00
" " Polands,	2 00
" " Bramah Pootras,	2 00
Greatest variety of fowls owned by the exhibitor,	2 00

Judges.—Dr. S. D. Richardson, Dr. Loomis, Franklin Wells.

FARM IMPLEMENTS.—CLASS I.

Best farm wagon,	$5 00
" harrow,	1 00
" corn cultivator,	1 00
" fanning mill,	1 00
" corn stalk cutter,	2 00
" straw cutter,	1 00
" horse cart for a farm,	1 00
" ox cart,	2 00
" horse rake,	1 00
" ox yoke and bows,	50

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CLASS II.

Best harness,	$4 00
" riding saddle,	2 00
" churn,	2 00
" grain cradle,	1 00
" hay rigging,	1 00
" lot of grain measures,	1 00
" seed planter for hand or horse power for hill and drills,	1 00
" 2 horse cultivator,	1 00
" sod plow,	2 00
" stirring plow,	2 00

Judges.—John Grinnell, Wm. H. Castle, Silas Cady.

BREAD, BUTTER, CHEESE AND HONEY.

Best loaf of bread,	$1 00
" 10 pounds of butter,	1 00
" cheese, not less than 20 lbs.,	1 00
" 10 pounds honey,	1 00

Judges.—Mrs. Wm. Kyte, Mrs. Geo. Keech, Mrs. Lockwood Matthewson.

DOMESTIC MANUFACTURES.—CLASS I.

Best pair of woolen blankets,	$1 00
" 10 yards of flannel,	1 00
" 10 " of woolen carpet,	1 00
" hearth rug,	1 00
" 10 yards of rag carpet,	1 00
" pair of woolen knit stockings,	50
" " " socks,	50
" " " mittens,	50
" woolen coverlet,	1 00
" pair of worsted stockings,	50
" sample of woolen yarn, not less than 1 pound,	1 00
" " worsted " " " 1 "	1 00
" 10 yards of linen diaper,	1 00
" pair of knit cotton stockings,	50

Judges.—Mrs. Joel Redway, Miss Maria Farrand, Mrs. Rens. Strong.

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CLASS II.

Best pair of cowhide boots,	$1 00
" " calfskin "	1 00
" " ladies' slippers,	1 00
" " " bootees,	1 00
" " lasts,	1 00
" overcoat,	1 00
" dress coat,	1 00
" vest,	1 00
" straw hat,	50

Judges.—W. D. Oviatt, Wm. Allman, Cha's Clark.

CLASS III.

Best 2 horse carriage,	$5 00
" 1 " buggy,	5 00
" bedstead,	1 00
" 6 chairs,	1 00
" table,	1 00
" rocking chair,	1 00
" set of horse shoes,	1 00
" flour barrel,	1 00
" pork barrel,	1 00
" wash tub,	1 00
" cooking stove,	2 00
" parlor "	1 00
" pump,	2 00

Judges.—Harvey Cady, W. D. Pettit, H. F. Banker.

PAINTINGS, DRAWINGS, AND DAGUERREOTYPES.

Best specimen of animal painting in oil,	$1 00
" " " in water colors,	1 00
" " of cattle drawing, by artist,	1 00
" " of daguerreotype,	1 00

Judges—S. C. Coffinberry, R. S. Eaton, A. Bristol.

NEEDLE, SHELL AND WAX WORK.

Best ornamental needle work,	$1 00
" ottoman cover,	1 00

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Best group flowers,	$0 50
" variety worsted work,	1 00
" worked collar,	50
" worked quilt,	1 00
" portfolio marked,	50
" silk bonnet,	1 00
" straw bonnet,	1 00
" lace cap,	50
" 2 lamp mats,	50
Ornamental shell work,	50
Best specimen wax flowers,	1 00
" specimen artificial flowers,	1 00

FLOWERS.

Best and greatest variety of cut flowers,	$1 00
" specimen dahlias,	50
" and greatest variety of roses,	50
" variety of verbenas,	50
" variety of indigenous flowers,	50
" collection of green house plants owned by one person,	1 00
" boquet,	50
For the most beautiful arranged basket of flowers,	50

Judges—Mrs. J. E. Kelsey, Mrs. C. H. Starr, Mrs. Geo. Talbot.

FRUIT.

For the best and greatest variety of table apples, each variety named and labeled, grown by the exhibitor,	$2 00
Best and greatest variety of winter apples, 3 of each kind, and labeled.	2 00
Best bushel of winter apples,	2 00
" and greatest number of varieties of good pears named and labeled, grown by the exhibitor,	1 00
Best collection of autumn pears named and labeled,	1 00
" 12 peaches,	50
" and greatest variety of peaches labeled,	1 00
Best collection of plums six specimens each,	50
" 12 quinces of any good variety,	50
" and most extensive collection of grapes,	1 00

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Best water melon, ... $0 50
" musk melon, ... 50

Discretionary premiums will be awarded to choice fruit not enumerated.

Judges.—John B. Dickey, Isaac Major, Peter Wagner.

VEGETABLES.

Best 12 white turnips, ... $ 50
" 12 carrots, ... 50
" 12 table beets, ... 50
" 12 parsneps, ... 50
" 12 onions, ... 50
" 12 sweet potatoes, ... 50
" 3 heads of cabbage, ... 50
" 2 vegetable eggs, ... 50
" ½ peck lima beans, ... 50
" ½ bushel white field beans, ... 50
" 3 crookneck squashes, ... 50
" 3 of any vareity squashes, ... 50
" 12 ears seed corn, ... 50
" ¼ bushel potatoes, ... 50
" and greatest distinct variety of vegetable grown by exhibitor, ... 1 00

Judges.—Oliver Wilcox, John W. Fletcher, Eri Jones.

FARM PRODUCTS.

Best acre of wheat, ... $3 00
2d " " 2 00
Best acre of corn, ... 3 00
2d " " 2 00
Best bushel of wheat, ... 1 00
" " corn in the ear, ... 1 00
" " barley, ... 1 00
Best acre of oats, ... 3 00
Best peck of clover seed, ... 1 00
" " timothy " 1 00

Judges.—Adam Bower, Wm. Wheeler, Joseph Miller.

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PLOWING MATCH.

First premium,..... $3 00
Second " 2 00

Judges.—Robert Shields, James Culverson, Richard Wellbourn.

Discretionary premiums will be awarded upon miscellaneous or non-enumerated articles.

Judges.—Israel Pershall, James B. Dunkin, John Bennett.

RULES AND REGULATIONS OF THE AGRICULTURAL FAIR.

Any person can become a member of the society for one year by paying half a dollar into the treasury, and may continue a member by paying fifty cents per annum.

Members of the society, and all who become such at the time of the fair, will be furnished with tickets which will admit the person, his wife and children under 18 years of age, to the exhibition at all times during its continuance.

Single tickets 10 cents, admitting one person, will be for sale at the business office.

Exhibitors who intend to compete for premiums must become members of the society.

In order to save confusion, exhibitors are requested to enter and arrange their articles as early as possible on Wednesday morning, so that all will be in readiness for the examination of the Judges at one o'clock P. M., on the same day.

Exhibitors will be careful to have their articles arranged in their appropriate class and in season, otherwise they may be overlooked by the viewing committees.

Persons engaged for the purpose, will be in readiness to arrange the articles and animals in their appropriate places.

All stock should be accompanied with a concise statement of the pedigree, feeding and other circumstances.

Cards will be furnished with the number as entered at the office. Exhibitors will be careful to place their cards upon or near the articles or animals, so that the judges will have no difficulty in finding them. No animals or articles entered for exhibition can be taken from the ground before the close of the fair, except by permission of a member of the executive committee, and no premiums will be paid on any article removed in violation of this rule.

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No animal or article can compete for two premiums. When there is but one exhibitor he will receive the first or second premium, as the animal or article may be adjudged, and no premium will be awarded when the animal is not worthy.

Judges are requested to make their reports to the Secretary, at the business office, by 10 o'clock A. M., on Thursday.

Stock to compete for premiums must be exhibited by the owner or his agents, and be owned in the county. Farm implements and domestic manufactures of all kinds must have been manufactured within the county. Needle-work, fruit, flowers, vegetables, butter, &c., &c., must be the production of the exhibitor.

The annual address will be delivered on the show ground at 1 o'clock, P. M., on the 5th.

Immediately after the address the reports of the Judges will be read. The Judges will be expected to give the reasons for their decisions, embracing the superior qualities of the animals or articles to which premiums are awarded.

COMFORT TYLER,
President.

CYRUS FOREMAN, *Sec.*

The annual fair was held on the 4th and 5th days of October, 1854, at Centreville, at which the following are the reports of the committees:

CLASS I.—CATTLE, SHORT HORNS.

The committee on cattle award premiums as follows:

Bull 5 years old, Comfort Tyler,	$5 00
" 1 " Wm. Haggerman,	3 00
" calf, P. F. Putnam, 1st prem.,	3 00
" " Curtis Hoppin, 2d "	Vol. Trans.
Cow over 3 years old, C. S. Wheeler, 1st prem.,	5 00
" 3 " P. C. Lown, 2d "	3 00
Heifer calf, C. S. Wheeler, 1st prem.,	3 00

CLASS II.—DEVON.

Cow over 3 years old, Aaron Hagenbach, 2d prem.,	$3 00

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CLASS III.—CROSS OF BLOOD CATTLE.

Bull 2 years old,	George Carman,	1st prem.,	$4 00
" 2 "	Silas Cady,	2d prem.,	2 00
" calf,	Aaron Hagenbach,	1st "	3 00
Cow 3 years old,	George Carman,	1st prem.,	5 00
Heifer 2 "	Aaron Hagenbach	"	4 00
" 1 "	George Carman,	"	3 00
" 1 "	Wm. Hagenbach,	2d prem.,	2 00
" calf,	Aaron Hagenbach,	1st "	3 00

CLASS IV.—GRADES AND NATIVES.

Bull 2 years old,	George Talbot,	1st prem.,	$4 00
" 2 "	J. B. Dunkin,	2d "	2 00
Heifer 2 "	M. H. Wakeman,	1st prem.,	4 00
" 1 "	C. S. Wheeler,	2d "	2 00
" calf,	M. H. Wakeman,	1st "	3 00

CLASS V.—CATTLE BY PAIRS.

Pair oxen,	H. K. Farrand,	1st prem.,	$5 00
"	Levi Eddy,	2d "	3 00
Steers 2 years old,	George Carman,	2d prem.,	2 00
" calves,	"	"	Vol. Trans.

CLASS VI.—CATTLE OWNED OUT OF THE COUNTY.

Bull 3 years old,	M. Powell,		$5 00
Cow 3 "	"		5 00
Heifer 2 "	"		5 00
Bull 10 months old "			5 00

MILO POWELL,
H. K. FARRAND,
S. FRANKISH,
Committee.

—

CLASS VII.—HORSES FOR ALL WORK.

Stallion 4 years old,	A. Blanchard,	1st prem.,	$5 00
" 4 "	Mr. Huyes,	2d "	3 00

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Stallion 3 years old, T. Broadley, 1st prem., ... $5 00
" 2 " N. Harvey, ... 3 00
" 1 " Joshua Wagner, 1st prem., Vol. Trans. and 1 00
" 1 " A. C. Chaffer, 2d " ..... Vol. Trans.
Sucking colt, H. T. Steele, 1st prem., ... 2 00
" John Peek, 2d " ..... Vol. Trans.
Brood mare, P. C. Lown, 1st " 5 00
" James Hay, 2d " 3 00
Mare 3 years old, A. Foot, ... 3 00
" 2 " Wm. Massar, 1st prem., ... 3 00
" 2 " Wm. C. Bryant, 2d prem., ... 2 00

CLASS VIII.—BLOOD HORSES.

There were no premiums awarded to this class for want of written pedigrees.

CLASS IX.—HORSES TO BE SHOWN IN HARNESS.

Farm team, Robt. Estes, 1st prem., ... $5 00
" Silas Cady, 2d " 3 00
Span geldings, A. B. Moore, 1st prem., ... 5 00
" J. Swan, 2d " 3 00
Single horse, Oscar L. Briggs, 1st " 5 00
" George Benedict, 2d " 3 00

C. S. WHEELER,
S. F. GOSS,
GEORGE S. CAMBER,
Committee.

—

CLASS I.—SHEEP, FRENCH SHEEP.

Buck 2 years old, Richard Dougherty, 1st prem., ... $5 00
" 2 " J. B. Dunkin, 2d " 3 00

CLASS II.—SPANISH SHEEP.

Buck, Benj. Perrin, 1st prem., ... $5 00
" H. K. Farrand, 2d " 3 00
Yearling buck, Benj. Perrin, 2d prem., ... 1 50
Buck lamb, " 1st " 2 00

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Pen ewes, Benjamin Perrin, 1st prem., ... $5 00
" O. F. Howard, 2d " 3 00
Pen yearling ewes, Benj. Perrin, 1st prem., ... 3 00
" " O. F. Howard, 2d " 2 00
Three ewe lambs, Benj. Perrin, 1st " 3 00

CLASS III.—CROSS BETWEEN FRENCH AND SPANISH.

Buck, 3 years old, Samuel Ludwig, 1st prem., ... $5 00
" 1 year old, J. B. Dunkin, 1st prem., ... 2 00
" lamb, Richard Dougherty, 1st prem., ... 2 00
Three ews, Joseph Horton, 1st premium, ... 5 00
" lambs, " 1st " 3 00

CLASS IV.—LONG WOOL.

Three ewe lambs, Samuel Ludwig, 1st premium, ... $3 00
Buck lambs, Samuel Ludwig, 2d " 2 00

M. H. WAKEMAN,
PHINEAS FARRAND,
BENJ. PERRIN,
Committee.

—

SWINE.

The committee on swine award premiums as follows:

Boar, 1 year old, P. C. Lown, ... $2 00
Sow, 2 years old, Henry Weaver, ... 3 00
Pr. pigs, over 6 months old, less than 12 mos., P. F. Putnam, 2 00
Lot pigs under 6 months old, Henry Weaver, ... 3 00

O. F. HOWARD,
T. SHURTZ,
GEORGE PASHBY.
Committee.

—

POULTRY.

The committee on poultry award premiums as follows:

Pair turkeys, P. F. Putnam, ... $1 00

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Pair geese, C. H. & J. F. Thoms,	$1 00
" Shanghais, M. W. Dimick,	2 00
" Poland, "	2 00
" Brahma Pootras, "	2 00
" Cochin Chinas, Jos. Horton,	2 00
Variety fowls, "	2 00
Pair Dorkings, S. D. Richardson,	2 00
" Hong Kong, " discretionary,	2 00

S. D. RICHARDSON,
FRANKLIN WELLS,
Committee.

—

FARM IMPLEMENTS.

The committee on farm implements award premiums as follows:

Farm wagon, M. W. Dimick,	$5 00
Corn stalk cutter, O. W. Wilcox,	2 00
Double harness, H. Cady,	4 00
Single " R. E. Case,	2 00
Churn, Thos. Silliman,	2 00
Sod plow, Thomas Mitchell,	2 00
Gang plow, L. D. Lyman,	1 00
Iron beam plow, Kibbe Watson,	2 00

JOHN GRINNELL,
SILAS CADY,
WM. H. CASTLE,
Committee.

—

DAIRY, &C.

The committee on bread, butter, cheese, and honey, award premiums as follows:

Loaf bread, Mrs. O. W. Wilcox,	$1 00
10 lbs. butter, Mrs. Southard Chapin,	1 00
Cheese, Mrs. S. Eldredge,	1 00

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11 lbs. honey, Mrs. Geo. Keech, ... $1 00

MRS. MATHEWSON,
MRS. KEECH,
MRS. JONES,
Committee.

—

DOMESTIC MANUFACTURES.

The committee on domestic manufactures award premiums as follows:

10 yards woolen carpet, Adelia O. Bean, ... $1 00
1 pair woolen hose, Rachel McCormick, ... 50
" " mittens, Wm. M. Adams, ... 50
1 woolen coverlet, Rachel McCormick, 2d, ... 50
" " Reuben Troxel, ... 1 00

MRS. JOEL REDWAY,
MRS. H. K. FARRAND,
MRS. R. STRONG,
Committee.

—

CLASS III.

2 horse carriage, H. Cady, ... $5 00
1 " buggy, Pettit & Conn, ... 5 00
Bedstead, T. R. Shaffer, ... 1 00
Pump, Thos. Silliman, ... 2 00
Set horse shoes, Wm. Will, ... 1 00
Grub hoe, " 50
Butcher knife, Wm. Broadley, ... 50
Tallion iron, " 50

HARVEY CADY,
W. D. PETTIT,
F. BANKER,
Committee.

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PAINTINGS, DRAWINGS, &C.

Daguerreotype, H. A. Shipman,	$1 00
Pencil drawing, E. C. Banker,	50
Monochromatic picture, Harriet Steele,	50
Pollochromatic painting, "	50

S. C. COFFINBERRY,
R. S. EATON,
A. BRISTOL,
Committee.

—

NEEDLE, SHELL AND WAX WORK.

Crochet basket, Mary Gilbert,	$ 50
Head dress, S. A. King,	50
Embroidered apron, Sarah Demott,	1 00
Broadcloth cape, Adelia O. Bean,	50
Merino Cape, Sarah Demott,	50
Worked pillow cases, Louisa Bean,	50
Gents' stocks, "	50
Linen hose, Harriet Steele,	50
Patch quilt, Rachel Miller,	1 00
Worked undersleeves, Wm. Major,	50
Embroidered skirt, Harriet Steele,	1 00
Worsted lamp mat, Thos. Silliman,	50
Bureau spread, "	50
Undersleeves, Adelia O. Bean,	50
Down comfortable, Mrs. John Putnam,	1 00
Light silk dress, Sarah Demott,	1 00
Black " "	1 00
Variety green house plants, Mrs. C. Gurney,	50
Silk bonnet, S. A. King,	1 00
Counterpane, Geo. Richards,	50
Wax flowers, A. D. Spratt,	50
Cut " "	50

HARRIET STEEL,
ADELIA SPIERCE,
Committee.

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FRUIT.

Variety winter apples, D. J. Kinney,	$2 00
Bushel " Geo. Carman,	2 00
12 peaches, G. E. Dart,	50

J. B. DICKEY,
ISAAC MAJOR,
PETER WAGNER,
Committee.

—

VEGETABLES.

12 carrots, G. V. Ten Brook,	$ 50
12 table beets, "	50
12 sweet potatoes "	50
Peck potatoes, "	50
½ peck Lima beans, O. W. Wilcox,	50
½ bushel white field beans, O. W. Wilcox,	50

O. W. WILCOX,
ERI JONES,
DAVID OAKS, Jr.,
Committee.

—

FARM PRODUCTS.

Bushel wheat, Geo. Richards,	$1 00
" corn, Silas Cady,	1 00
Peck timothy seed, S. Chapin,	1 00
12 ears corn, Richard Matthews,	50

ADAM BOWER,
WM. WHEELER,
JOS. MILLER,
Committee.

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PLOWING.

John Pashby, 1st premium, ... $3 00
Thos. Pashby, 2d " 2 00

JAS. CULBERTSON,
ROB'T SHIELDS,
R. WASHBURN,
Committee.

—

In the afternoon of the second day an address was delivered by S. C. Coffinberry, Esq., after which the reports of the viewing committees were read, and the congregation after returning a vote of thanks to Mr. Coffinberry, adjourned. There was a very large attendance and a keen interest manifested, not only between competitors, but among the spectators generally. The number of cattle entered was 64, number of horses 87, number of sheep 59, probably twice the amount of stock ever shown at once in this county before.

The society during the past year has raised by subscription abou $1,200, and purchased about 17 acres of land adjoining the village of Centerville for a show ground, have raised a frame 80 feet by 30 for an exhibition hall, and have nearly all the material on the ground to finish the same the next season. And thus the society at the end of the third annual fair has become sufficiently satisfied of the utility, and (prompted by the existing agricultural enterprise) convinced of the practicability of rendering it a permanent institution in our county, to purchase a large show ground and erect costly buildings, although the society is yet comparatively in its infancy.

For the Executive Committee,

CYRUS FOREMAN,
Recording Secretary.

CENTREVILLE, Jan. 15, 1855.

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SHIAWASSEE COUNTY.

J. C. Holmes, Esq., *Secretary Michigan State Agricultural Society:*

I have hastily compiled a few facts in relation to the locality and capacity this county affords of becoming one of the first in the State, for agriculture and the mechanic arts.

In the south part of the county many marshes are spread out for the relief of the eye and are as valuable to the new settlers as so much meadow, as they afford a nutritious grass, which is much used in winter as fodder, and it is said that sheep winter on it better, and are healthier than when wintered on the English grasses. About one-twentieth part is of such, while the rest is the very best of grain-growing, arable land, being well timbered with oak, which is the only fencing timber in the south part of the county, and there is said to be enough of it to fence the whole of that part of the county into five acre lots. The timbered land predominates at the north, reaching to the centre of the county, and is equally as productive as the south, while for spring crops it is more prolific, and a greater burden of straw can be produced, while at the south a greater gain of grain will be shown.

The south has shown a crop of corn which yielded 126 bushels (shelled) corn to the acre, while the north has only reached 97 bushels.

In the crop of oats, 63½ bushels have been raised in the timbered land, while at the south, the greatest yield is only 54¾ bushels.

In the wheat crop in the aggregate, there has not been much difference, except that the wheat at the south has not shrunk as much. But for the last three years there has been no perceptible difference. A field

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of 20 acres on the Maple river flats is reported to have yielded 800 bushels, while another such yield can hardly be found in any county.

Not much attention has been paid to the raising of stock until within a few years, especially the raising of horses; and we are sorry to say that there has been but two stock horses of blood and merit, which could be authenticated, in the county, so as to claim a residence, since the county was organized, which was March the 28th, 1836. One was owned at the north, the other at the south, but both have died on the owners' hands, which now leaves the county destitute of blood horses.

In regard to cattle, a better spirit has been manifested and is daily gaining ground. As far back as 1837, a blood Devonshire bull was brought into the county by L. Lyman, of Shiawassee, but as little spirit was interested in improving him he was allowed to degenerate, but his stock can be seen to this day, as his color was one of the best, and limbs the smoothest of the cattle kind.

In 1839, E. Cook, of Bennington, brought in a Devon & Durham bull from Ohio, imported stock, an excellent animal. In 1851, Mr. Cook bought a bull calf of A. S. & M. S. Brooks, Northville, Wayne County, Michigan, which is a red Durham, from imported stock in New York, which now, October, 1854, girts 7 feet, 5 inches, and weighs over a ton.

In the year 1841, Alexander McArthur, of Caledonia, owned an improved bull, sired from imported stock in Ohio, which was a model in form, but picturesque in color; he died in the hard winter of 1842 and 1843.

James B. Hunt, of Oakland county, sent a bull to this county in 1843—that was a model animal. The above is all that is worthy of note from the organization of this county up to 1851, which is fifteen years. Since then, there have been six pure blood bulls, and three heifers owned in the county. They are about equally distributed throughout the county. One is an Ayrshire, owned by Isaac Castle, of Shiawassee township, and may well be said to have the best loin and color of any in the county. He is from the imported stock of Prentice, New York.

One is a Holdeness, and has got some heifers that are hard to beat at the pail.

Two are of the celebrated stock of the name of "Yonondio," a Dur-

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ham with excellent points, and must be in time, a great advance in present stock in the county.

One is owned by Thomas P. Green, of Burns, and the other by Stimpson & Dewey of Owosso. They also have some blood heifers which are very beautiful.

Almon L. Gilbert, of Caledonia, ownes a Durham bull which is out of the stock of A. Y. Moore of this State, and is a handsome creature. So much for cattle in this county, up to 1854.

In reference to sheep, a greater improvement is being made. A flock from Vermont has just been sold in this county. They numbered 150 ewes, Spanish merino, which are with lamb by a $600 buck, which weighs 248½ lbs.

While the Shiawassee river enters the south east corner of the county, and leaves it at the north west corner, it must necessarily be well watered. The numerous hydraulic privileges the river affords for the carrying on of all kinds of machineries which the agriculturist could call for, renders the stream invaluable to the county. There is in operation now, eight saw mills in the county, also five large flouring mills which are in daily use, containing in all, ten run of stones, which are capable of grinding 800 bushels of wheat daily.

There are two woolen factories and cloth dressing establishments, (formerly four,) which are in constant employ.

There are three furnaces in the county, all fully employed.

Other mechanics are in just proportion, and help make up a busy multitude which carry on a diversified system of lucrativeness to themselves and to the county.

Other matters of intrinsic worth are carried on by the citizens of the county, which I have not time now to detail, but hope to add an extended article in our next report.

The fifth annual meeting was held in Corunna, on the 11th and 12th days of Oct., 1854. The exhibition was better attended than any previous one, and the articles on exhibition were numerous. In the entries of cattle, few counties could out-strip us in numbers, if in quality.

The horses made a good appearance. Some of them could be driven around on almost their own shadow, so well were they broken to the use of the reins.

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The ladies almost excelled themselves in the fine arts. The show in this department was excellent.

The society pays its premiums as fast as called upon, and at this date has money in its treasury.

The following are the officers for the year 1855.

Robert R. Thompson, President.

James Cummins, Treasurer.

P. S. Lyman, Secretary.

Ezekiel Cook, M. B. Martin, Isaac Gale, M. H. Clark, Daniel Lyon, Executive Committee.

Vice Presidents.	*Corresp'g Secretaries.*	*Town.*
M. B. Martin,	John Hill,	Antrim.
Wm. Frain,	J. M. Heartwell,	Bennington.
Nicholas Gulick,	R. Haverland,	Burns.
Luke H. Parsons,	E. Green,	Caledonia.
George W. Slocum,	James Kenney,	Middlebury.
J. W. Dewey,	C. L. Goodhue,	Owosso.
John Spaulding,	Henry Bridger,	Perry.
Avery Thomas,	Elder Goss,	Rush.
H. Wheeler,	F. R. Pease,	New Haven.
Isaac Castle,	G. H. Philips,	Shiawassee.
Peter Laing,	Milton Phelps,	Sciota.
R. W. Holly,	H. Van Auken,	Vernon.
A. J. Van Riper,	Henry Corcoran,	Woodhull.
R. L. Johnstone,	Charles Wilkenson,	Venice.

At the executive meeting held in February it was resolved to hold the annual fair and exhibition at the village of Corunna so long as the citizens would furnish a yard large enough to accommodate the society free of all expense to the association.

I would say that there is a good fence enclosing a yard sufficient for all purposes as yet, which has been done by the citizens, but more particularly through the liberal efforts of E. Green of this place.

The foregoing we would respectfully submit.

By order of Executive Committee.

P. S. LYMAN,
Secretary.

CORUNNA, Jan. 8th, 1855.

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LIST OF PREMIUMS

Awarded at the fifth annual exhibition of the Shiawassee County Agricultural Society, held at Corunna, on the 11th and 12th days of October, 1854.

HORSES.

The undersigned, appointed by the executive committee as judges on horses, having discharged the duty assigned them, would beg leave respectfully to report as follows:

Best stock horse for all work, C. S. Johnson, Caledonia, ... $5 00
2d best horse for all work, E. M. Bacon, " 3 00
Best 3 years old horse, A. McArthur, Caledonia, Transactions and 1 00
2d best 3 years old horse, A. C. Cooper, Bennington, ... 1 00
Best 2 years old horse, John Wallace, Shiawassee, ... 2 00
2d best 2 years old horse, James Kinney, Middlebury, ... 1 00
Best 2 years old mare, G. W. Harris, Caledonia, Transactions and 1 00
2d best 2 year old mare, S. Z. Kenyon, " 1 00
2d " 3 " stock horse, J. P. Shaft, Bennington, ... 3 00
Best 3 year old blooded mare, C. S. Kimberly, Caledonia, ... 3 00
2d best 3 years old blood mare, S. Z. Kenyon, " ... 2 00
Best 3 year old mare for all work, J. M. Hartwell, ...Transactions.
Best pair matched horses for all work, J. Davids, Transactions and 2 00
2d best pair matched horses for all work, Wm. Frain, Bennington, ... 2 00
Best yearling colt, John Wallace, Shiawassee, Transactions and 1 00
2d best yearling colt, George Davis, ... 1 00
Best sucking colt, Hiram Johnson, Venice, ... 1 00
Best breeding mare, John Wallace, Shiawassee, ... 3 00
2d best breeding mare, S. Z. Kenyon, Caledonia, Transactions and 1 00
Best ring horse in harness, J. R. Corwin, Caledonia, ... 2 00
2d best ring horse in harness, S. Reynolds, Shiawassee, ... 1 00
Best horse of merit, J. M. Hartwell, Bennington, ... 1 00

The committee would say that a great change has come over the display of horses at this exhibition compared with former ones, but yet a

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place was found vacant which had been formerly filled, but the offspring is fast filling the vacancy.

Judges.—Simon Traver, Wm. Frain, G. W. Harris.

Thirty-eight entries were made in this class.

CATTLE.—DURHAM, AYRSHIRE, AND DEVONS.

Best 3 years old bull, E. Cook, Bennington,	$2 00
" 2 " " I. Castle, Shiawassee,	2 00
" 2 " Ayrshire, I. Castle, Shiawassee,	2 00
" 2 " heifer, Durham, C. S. Johnson, Caledonia,	75
" 1 " " " " "	50
2d best bull calf—Durham, H. Johnson, Venice,	50
Best heifer calf—Devon, I. Castle, Shiawassee,	Transactions.
" ½ blood cow and calf, Devonshire, C. S. Johnson,	1 00
" ½ blood heifer calf, Ayrshire, L. C. Eddy, Caledonia,	50

NATIVE AND GRADE CATTLE.

Best 2 years old bull, A. L. Gilbert, Caledonia,	$2 00
2d best 2 years old bull, B. M. Waterman, "	1 00
Best cow, 4 years old, M. H. Clark, "	Transactions.
2d best cow, 4 years old, L. C. Eddy, "	75
Best 2 years old heifer, Wm. Lemon, "	75
2d best 2 years old heifer, E. Comstock, Owosso,	50
Best bull calf, 5 months, R. H. Root, Bennington,	1 00
2d best bull calf, 5 months, I. Castle, Shiawassee,	50
Best heifer calf, E. Cook, Bennington,	50
2d best heifer calf, A. L. Gilbert, Caledonia,	38

The judges would recommend a discretionary premium of 38 cents, to best bull calf 4½ months old, E. Cook, Bennington.

WORKING OXEN.

Best working oxen, R. H. Root, Bennington,	Transactions and 2 00
2d best working oxen, Isaac Gale, "	2 00
Best 4 year olds, James Gunsolly, Caledonia,	2 00
Best 3 years old steers, E. Cook, Bennington,	2 00
2d best 3 years old steers, J. M. Bardley, Bennington,	1 00
Best yearling steers, S. Hawkins, Caledonia,	75
2d best yearling steers, E. Cook, Bennington,	50

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Your committee had much difficulty in deciding between several of the animals, particularly the colors, all of which possess much merit.

Much embarrassment was encountered for reason of the lateness of the entries made at the Society's Books, as the rules and regulations were not complied with.

Judges.—R. R. Thompson, J. McCoy, L. Castle.

Fifty-two entries were made in this department.

SWINE.

Best breeding sow, J. C. Clements, Caledonia, ... $0 75

The show of swine is very meagre, and there seems to be less interest taken in the breeding of swine than in former years; this should not be so.

Judges.—J. M. Hartwell, C. R. Gilbert.

SHEEP.

Best Merino buck, I. Gale, Bennington, ... $2 00
2d best Merino buck, J. M. Hartwell, Bennington, ... 1 00
Best pen ewes, Spanish and French, L. H. Parsons, Caledonia, Transactions and 1 00
2d best pen ewes, full blood Spanish, J. W. Brewer, Bennington, ... 75
Best merino buck lamb, J. W. Brewer, Bennington, Transactions and 50
Best imported ewe, (French,) L. H. Parsons, ... 2 00

This animal, your committee think, is superior to anything that has come under their observation, that constitutes the perfect sheep. She is from the imported flock of A. S. Patterson, Newark, N. J.

Judges.—J. R. Thompson, B. M. Waterman.

GARDEN VEGETABLES.

Best lot beets, L. H. Parsons, Caledonia, ... $0 25
2d best lot beets, L. Lyman, Caledonia, ... 18
Best lot carrots, R. Lyons, Caledonia, ... 25
2d best lot carrots, I. Castle, Shiawassee, ... 18
Best lot onions, R. Lyons, Caledonia, ... 25
2d best onions, C. R. Gilbert, Caledonia, ... 18
Best lot red onions, R. Lyons, " 25

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2d best lot red onions, S. Frain, Bennington,..... $0 18
Best squash, S. Frain, Bennington,..... 25
Best lot pumpkins, S. L. Parks, Bennington,..... 25
2d best lot pumpkins, S. Frain, " 18
Best lot turnips, P. S. Lyman, Caledonia,..... 25
2d best lot turnips, R. Lyons, " 18
Best lot cabbages, " " 25
" lot parsneps, " " 18
" and greatest lot of vegetables exhibited by one person, R. Lyons, Caledonia,..... 25
The largest specimen of beets, J. C. Clement,..... 25

Judge.—I. Gale.

DOMESTIC MANUFACTURES.

Best 10 yards woolen cloth, J. W. Brewer, Bennington,..... $1 00
Best 10 yards woolen flannel, " " 1 00
2d best 10 yards woolen flannel, P. S. Lyman, Caledonia,..... 50
Best woolen blankets, J. W. Brewer, Bennington,..... 1 00
" 10 yards rag carpet, " " 75
2d best 10 yards rag carpet, S. H. Peck, Caledonia,..... 38
Best 1 lb. stocking yarn, white, F. C. Rathburn, Bennington,.. 50
" 1 lb. " blue mixed, " " ... 50
" pair woolen stockings, " " ... 25
2d best pr. " " " " ... 18
Best pair cotton " S. Lyman, Shiawassee,..... 25
2d best pair cotton " F. C. Rathburn, Bennington,..... 18
Best pair linen " Mrs. C. R. Gilbert, Caledonia,... 50
2d best pr. " " F. C. Rathburn, Bennington,..... 25
Best ladies' gaiters, Miss Sarah Cook, Caledonia,..... 50
2d best ladies' gaiters, Mrs. E. Green, " 38
Best over shoes, Miss Sarah Cook, " 50
Best cow hide boots, E. F. Wade, " 1 00
2d best " " J. R. Sawyer, Owosso,..... 50
Best misses' calf boots, E. F. Wade, Caledonia,..... 1 00
" women's bootees, " " 1 00
" ladies' walking shoes, " " 50
" over coat, J. Anderson, " 1 00

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Best dress coat, J. Anderson, Caledonia, ... $1 00
2d best military coat, " " 50
Best pair pants, black, " " 75
" satin vest, " " 50
" buggy made in county, T. J. Harris, Caledonia, ... 1 00
" plow and clevis, G. W. Harris, " 50
2d best " D. Lyon, Owosso, ... 38

In concluding our labor, your committee would say that in consequence of the large amount of work required of us in so short a time, we have not been able to bestow as much time and attention upon many of the articles as we deem them worthy of, and would suggest that the list be subdivided with judges for each division, so that they may give more attention and better satisfaction to exhibitors.

Judges—A. Parsons, N. P. Harder.

BUTTER, CHEESE, SUGAR AND HONEY.

The committee on butter, cheese, sugar and honey respectfully submit the following report.

Best 10 lbs. butter, L. Lyman, Shiawassee, ... Mich. Farmer.
2d best " " P. Goldsmith, " 75
Best 50 lbs. cheese, I. Castle, " 1 00
2d best " " H. Wheeler, New Haven, ... 75
Best 10 lbs. maple sugar, C. W. Gilbert, Caledonia, ... 50
Best bee hive and bees, A. Huff, Vernon, ... 1 00

Your committee would recommend the favorable introduction of this bee hive, as it seems to them to combine simplicity and utility in a foot square.

Judges—T. S. Morton, E. Green.

FIELD CROPS.

Best acre winter wheat, E. Wright, Vernon, ... $2 00
" acre corn, 100 bushels, shelled, E. Wright, Vernon, ... 2 00
2d best " 95 " " A. C. Botsford, Byron, ... 1 00
3d " " 92 " " J. R. Thompson, Caledonia, 50
Best ¼ acre potatoes, C. S. Johnson, Caledonia, ... 1 50
2d best ¼ " L. H. Parsons, " 1 00
Best crop of beans, Wm. Frain, Bennington, ... 50

Judges—A. Purdy, A. Dewey, E. Comstock.

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FRUIT.

Your committee report as follows:

Best lot apples, Wm Frain, Bennington,	$0 75
2d best " H. Bardslee, "	50
3d " " native, W. Coff, "	25
Best lot quinces, L. H. Parsons, Caledonia,	50
2d best " Wm. Frain, Bennington,	25
Best lot pears, " "	50

Your committee regret that visitors and others cannot examine articles, especially fruit, without the spirit of pilfering making itself manifest as it did on this occasion, therefore they have to report the same.

Judges—M. H. Clark, P. Goldsmith.

NEEDLE, SHELL, WAX WORK, &C.

Best bed quilt, Mrs. T. Fox, Caledonia,	$1 00
2d do " S. Howe, Bennington,	50
Best bed spread, A. Dewey, Owosso,	75
2d best " H. Bardslee, Bennington,	38
Best ottoman cover, Mrs. D. L. Thorpe, Owosso,	75
2d best " Miss Margaret Kimberly, Caledonia,	50
3d " " Mrs. E. Green, "	25
Best embroidered slippers, Miss M. Kimberly, "	50
2d best satin " Mrs. E. Green, "	38
Best specimen worsted work, " "	50
2d best " " Mrs. Baker, Owosso,	38
Best embroidered stand cover, Miss E. Mackie, Caledonia,	50
2d best " needle cover, Miss S. Cook, Caledonia,	38
1 watch case, by E. Ferry, 10 years old, "	38
¼ yard edging, F. C. Rathburn, Bennington,	25
Toilet cushion, Miss M. Kimberly, Caledonia,	25
Best specimen fruits, wax work, Mrs. E. L. Buckingham, Burns,	50
2d best specimen fruits, blackberries, wax work, C. Van Auken, Vernon,	25
Best tidy for arm chair, Miss L. Johnson, Caledonia,	50
" silk bonnets, Miss E. Mackie, "	1 00
2d best " Mrs. B. M. Havestraw, Burns,	50
Best dressed doll, (fancy) Miss E. Ferry, Caledonia,	12

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Best specimen embroidery, Mrs. T. Fox, Caledonia,..... $0 50
2d best " Miss E. Mackie, " 25

Your committee would beg respectfully to say that with such specimens of skill in the use of the needle as was here exhibited, they may become ornaments and teachers of fashion, instead of imitators, as the articles show that those by whose labor they were produced, are far above a mediocrity of design.

Judges—E. F. Wade, Mrs. N. P. Harder.

POULTRY.

The committe on fowls report as follows:

Best lot Shanghai fowls, A. Huff, Vernon,..... $ 50
2d " " " C. R. Gilbert, Caledonia,..... 25
Best lot Cochin China, " J. M. Hartwell, Benninngton,..... 50
2d best " " " E. H. Cressy, Vernon,..... 25
Best lot common fowls, A. C. Cooper, Bennington,..... 50
2d best " " E. H. Cressy, Vernon,..... 25
Best Brahma Pootras, " " 50
" lot of turkeys, S. Hop Peck, Caledonia,..... 50

The committee beg leave to say as they had not an article to examine in this class at the last exhibition, they are of the opinion that the "hen fever" must be raging in this vicinity, as there were 16 repeated entries with upwards of 40 specimens of animals in this class that came under their division and lot to award premiums, and after performing the arduous task, they beg leave to be discharged from further consideration.

Judges—O. Corcoran, H. I. Newell, S. B. Lyman.

PAINTING, DRAWING, DAGUERREOTYPES.

Best painting, water colors, Miss E. Mackie, Caledonia,..... $2 00
2d best " " " L. Thompson, " 1 00
Greatest collection by county artist, " " 1 00
Best monochromatic, (landscape) Mrs. O. C. Moore, Rush,..... 75
2d best " " Miss E. Mackie, Caledonia,.. 50
Best " (village) Mrs. E. Green, " .. 50
" crayon drawing, Miss E. Mackie, Caledonia,..... 25
" daguerreotype, Mrs. Baker, " 38

Too much merit or meed of praise cannot be given the above exhibi-

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tors, as they are all young, but their work contains the elements of genius and beauty of design that is worthy of older heads.

This department of the annual fair reflects great credit on our county artists, and is the proof of American skill when only applied to adorn the beautiful and beautify the useful.

The committee regret that the articles were not left on the tables longer, and would say that some things could not be found when the examination took place.

Judges—Mrs. Irene Gould, Miss Margaret Holley, Monroe Holley.

FLOWERS, BOQUETS AND HOUSE PLANTS.

Your committee awarded premiums accordingly as follows:

Best lot house plants, P. S. Lyman, Caledonia,	$1 00
" rose geranium, " "	50
" canary bird & cage, decorated, J. Shuttleworth, Caledonia,	50
2d best " " " Mrs. Mary Lyman, "	25
Best silver leaf geranium, P. S. Lyman, Caledonia,	50
" artificial flowers, Mrs. E. F. Wade, "	50
2d best " Mrs. Baker, Bennington,	25
Best oleander, native of Brazil, P. S. Lyman, Caledonia,	50
" Jerusalem cherry, Mrs. A. Waters, "	50
2d best " alamanthia, Mrs. P. S. Lyman, "	25
Best horse shoe geranium, P. S. Lyman, "	50
" strawberry, (Emery) Mrs. Baker, Bennington,	25
2d best " wax plant, Mrs. P. S. Lyman, Caledonia,	18

The committee have found many articles worthy of premiums and would recommend a larger list in the future, as the time and expense for raising house plants is nearly nominal, while the taste and pleasure of sitting under their shade in the cold and chilly winter's wind, is a luxury that we wish a more general spirit were cultivated throughout the county.

Judges—M. B. Martin, Miss Margaret Kimberly, Mrs. E. Green.

FARM IMPLEMENTS.

Best plow, G. W. Harris and D. Lyon, equal,	$4 00
2d best plow, Goss & Monroe, Burns,	1 00
Best wheat cultivator, E. Green, Caledonia,	1 00
" corn " " "	75

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2d best corn cultivator, P. Goldsmith, Bennington,..... $0 50
Cider mill, (not made in county) E. Cook, " ,...Rural New Yorker.
Best ox yoke, R. H. Root, Bennington,..... 50

Two 2 horse wagons were exhibited but the committee think they were not worthy of a premium as they were not evidently prepared for exhibition.

Judges—Isaac Castle, Charles Wilkinson.

MISCELLANEOUS ARTICLES.

Your committee would make the following report of miscellaneous articles:

One show case, filled with bonnets, with glass of an uncommon size, E. Green, Caledonia,..... $1 00
One bottle of currant wine of uncommon good flavor, a specimen of more, E. Comstock, Owosso,..... 50
One bottle grape wine, E. Comstock, Owosso,..... 38
Fine specimen of earthern ware, No. 434, made by Ira Braton, north part of Livingston county,..... 50
One churn, not made in county,.....Transactions.
One fly reliever, made by Miss Crooks, a girl 12 years old, H. Crooks, Owosso,..... 25

The committee offer the above as their report and ask to be discharged.

Judges—L. H. Parsons, Daniel Lyon.

The county fair was held at Corunna on the 11th and 12th days of Oct., 1854, and was the most successful one yet held by the society. The show grounds were neatly fitted up, and quite an excitement was exhibited while many visited the fair, although the weather was unpropitious on the morning of the second day, which lessened greatly the enjoyment of the occasion.

The number of entries for premiums were as follows: Blood horses, 15; horses for all work, 24; short horns, 11; Devons 3; Ayrshire, 2; native, 7; grade, 27; working oxen, 12; sheep, 11; poultry 17, ; garden vegetables, 19; domestic manufactures, 54; field crops, 12; fruit, 13; butter, cheese, 10; needle, shell and wax work, 32; painting, 17; flowers, boquets, 19; farm implements, 11; miscellaneous, 6.

The amount received of membership tickets and visitors amounted to $81 25, taken on the 11th and 12th days of Oct., 1854. There is in the

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hands of the Treasurer the sum of $60, which will be used to liquidate the present awards, which will be paid on presentation of the certificate of the society to the Treasurer. Next year, the executive committee would say, they can make out a larger list of premiums than this, and that the fair ground will be better arranged.

The officers for the ensuing year are as follows:

President—R. R. Thompson.

Treasurer—James Cummin.

Secretary—P. S. Lyman.

Executive Committee—Isaac Gale, M. B. Martin, E. Cook, M. H. Clark and Daniel Lyon.

P. S. LYMAN,
Secretary.

ADDRESS

DELIVERED BEFORE THE SHIAWASSEE COUNTY AGRICULTURAL SOCIETY, ON THE LAST DAY OF THE FAIR, HELD IN CORUNNA, ON THE TWELFTH DAY OF OCTOBER, 1854.

BY E. F. WADE.

FELLOW CITIZENS—FARMERS, MECHANICS, AND ARTIZANS:

We meet on this occasion, not to celebrate the victories of some renowned *Military* Chieftain; to-day the blood-stained hands of the conquerer on the battlefield, mingle not in our deliberations. But, on the contrary, we have met for a purpose far more exalting to human nature; to commingle mind with mind, and to compare the various products of our farms and work shops; and thus affording the means to aid each other in all those varied labors and callings, incident to human life.

The Fiat of Omnipotence has long since gone forth, "in the sweat of thy face shalt thou eat bread." Hence the conclusion is just, that he who in health, attempts to gain a livelihood without labor of some sort, is as culpable morally, as he who violates that important scripture command, "thou shalt not steal," although the effects on society may be more different in the one case than in the other.

Man's adaption to labor, both physically and mentally, none will de-

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ny, for it is a truth too well established both by science and our own observation, to need proof, that a certain amount of labor or exercise is indispensably necessary for the promotion of physical health; and equally true is it that *study* and *thought* are absolutely necessary to give health and vigor to all the various organs of the human mind, which by nature have so powerful and sympathetic an influence over the various portions of the body. I am aware that poets have sung for ages past, "man wants but little here below," &c.—the sentiment of which, in the abstract, may be true. But let us look abroad in the world, and our own observation must convince us that the customs of society are daily, and even hourly creating wants among the people, varied in their nature, and to an almost boundless extent. Hence no principal is more clearly demonstrated than the *necessity* of labor to supply this great multiplicity of wants.

For the praiseworthy object of elevating labor to that honorable position which was evidently designed by Nature's God, and to turn it to the best account, the Shiawassee County Agricultural Society has been formed, the fifth anniversary of which we have met on the present occasion to celebrate.

The history of this association since its organization three years since, is too well understood by most, if not all of you, to require from me a detailed account of all its operations on the present occasion. Let it suffice to say, that like most all others of a kindred nature, situated in a new and sparsely populated county, it has had to struggle for an existence; and at times all the efforts of the few firm and true friends who have ever stood by it, were necessary to give it life and vitality. But I am happy to say to you at this time, that the society may now be considered as permanently established. Still, to give it that character and standing which it was designed to, and ought to have, it needs all the efforts of each and every member to increase the number of contributing members, that its benefits may be more extensively felt.

We shall not attempt, on the present occasion, to lay before you all the benefits which do and may accrue from an association of this kind; being fully convinced that such a task would require too great a trespass on your time and an abler head than my own. But we shall ask your indulgence while we attempt to set forth a few of the most prominent

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ones, briefly, and such as we, as an agricultural community, are more immediately interested in.

In the first place, there is not probably, an individual within the sound of my voice, but what is willing to admit that the present is an age of improvement. In fact I may say, that *progress* has been the *watch-word* and *improvement* has marked every stage of human society from the earliest dawning of civilization down to the present time. But few short years have rolled around since the old fashioned diligence coach, which was propelled at the rate of 5 or 6 miles per hour, was the most expeditious mode of transmitting intelligence and of travelling; now the lightning's flash sends it instantaneous from pole to pole, and the time of one beating pulse of our physical frame, is sufficient to transmit man's thoughts from earth's centre to its circumference. The improvements which have been made in agricultural implements and labor-saving machines generally, for the last third of a century, have not been perhaps quite so startling as those above enumerated; still, such improvements have been steadily advancing, as all who have arrived at the age of manhood must have observed. Even those but little past the middle age, can well remember the old fashioned wooden, or bull plow, so called, which was in their boyhood the only plow in use. And full well can I remember, when but a small boy, the irksome task imposed upon me by my father, of following all day by the side of the plow, to beam it, or keep it in the ground while passing through the harder places in the soil.

Now, through the inventive genius of our mechanics, plows of almost every conceivable model are produced, many of which are capable of turning up the soil in the most skillful manner, and to almost any desired depth; and that without the aid of *beaming*, as in times past.

Scarcely three-fourths of a century have passed, if I am to believe the statements of my own father, since the "Keppell stone," so called, was in common use in the mountainous portions of New England, and strange as it may appear at the present day, was thought to be the only safe way of transporting the farmer's grist on horse back to mill.

The Keppell stone, as it has been described, was a round stone, or as nearly so as possible, polished smooth, and a sufficient quantity of grain was put into one end of the bag to balance it, then the stone

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placed in the other end; the bag was then placed on the back of the horse, and with a boy astride, was sent to the mill.

This may appear strange to many of the younger portion of my hearers, for there is not probably a boy within the sound of my voice who has arrived at the age of eight years, but who is possessed of sufficient sagacity to discover in a moment, if he were going to mill on horseback, that he could just as well divide his grain and carry one half in one end, and the other half in the other end of the bag, as to balance it with a stone.

How long this simple and ruinous practice may have been in vogue among the New England farmers, I am not prepared to say, or whether one of a still more crude and simple nature may not have existed prior to this custom, we are equally in the dark. One thing we may assert as true beyond cavil; and that is, our farmers have ever been, and even now are, too prone to adhere to long established customs. Whatever our fathers did before us, we are too prone to think the right and only way. It matters not how different and varied may be the soil, still the same mode of plowing, the same rotation in crops that was practiced in the days of our youth, is carried out.

Neither has this custom of adhering to old established usages been confined alone to the farmers. It has to a greater or less extent pervaded every occupation and profession in christendom. It is a melancholy truth, that even from the days of a Gallileo down to the present time, the world has been too apt to look upon every new theory which has been advanced, as an innovation; and unfortunately for its best interest, the public have been more ready to brand with infamy the projector, than they have to investigate its truth as a system, or its claims to popular favor.

But a few brief years have passed, when, were you to question the practice of the doctor in his healing art, he would meet you with arguments like the following: "Why, sir, I am now pursuing the very identical practice laid down by Esculapius, who was the founder of the science. Indeed, sir, it cannot possibly be wrong, for it has stood the test of over two thousand years' experience."

Thus resting the truth of the system on its antiquity alone, by which rule, were we to measure the thousand and one crude ideas which have prevailed since the christian era, we might prove them equally true. If

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not presuming too much, I would remark further while on this subject, that in my view at least, the science of government, and even theology, has been, and even now is susceptible of improvement.

The same simple code which controlled the actions of the Pilgrim fathers, cannot be supposed for a moment to be in strict accordance with those extended wants and interests of this vast Republic, which is yearly organizing and adopting into the confederacy new and independent States, from one extremity of the continent to the other; and theology itself, after having lain dormant as it were for ten or twelve centuries, and bursting forth as it did in the middle of the sixteenth century from the gloom and mist of the dark ages, enshrouded in heathen mythology, cannot be supposed to be entirely free from the errors of these times. But of this, we deem it out of place to speak on the present occasion.

We have only to look upon the history of the past, and then behold the present, to discover that, as the light of science has illumined our mental and moral horizon, mankind are making gigantic strides in all those improvements which were evidently designed by an all-wise Providence to ameliorate the condition of our race.

Fellow citizens, to effect an object so noble in its design, and so beneficial in its result, this and kindred associations have been instituted.

To the farmer it is invaluable, for here, once in every year, he has presented before him all the best specimens of every description of farm stock which have been bred or imported by his co-laborers during the year, the mode of raising, their various qualities, &c. Here, too, he has presented before him all the improvements which have been made during the year, in the whole catalogue of farming tools, and their various uses and merits explained. All the best specimens of dairy products are here presented, and in addition, the mode of producing the greatest quantity and best quality, is fully published to all. Nor is this all. He has here the privilege of inspecting all the different specimens of mechanical skill, whether for ornament or use, from the humble disciple of St. Crispin, up to the more imposing designs of the most skillful architect and builder, thus giving him an opportunity which is invaluable, of selecting the best mechanics, from his boot maker up to the builder and ornamenter of his family mansion.

The mechanic, too, here has the opportunity of seeing what improve-

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ments have been made during the year by his brother tradesmen, and availing himself of all those improvements which the inventive genius of his competitor and rival neighbor may have perfected.

We might here enlarge even to a protracted course of lectures, in detailing the varied benefits which are and may be derived from associations of this kind, but time will not permit. Before leaving this part of my subject, permit me to say, that the benefits resulting in a pecuniary point of view from such exhibitions, are but a tithe in comparison to the great moral influence which they are destined to and are now exerting among the nations of the earth. I may be thought visionary in my ideas on this subject, but I am fully convinced that the recent project of holding *World Fairs*, or industrial exhibitions, is destined to be the great intellectual lever and moral fulcrum by which the world is to be moved.

By this plan of biennial meetings of the people of different nations of both hemispheres, they become better acquainted with the political morals and social organizations of each other. Here the proud and haughty representative of titled nobility and crowned heads comes in contact with the humble and unpretending representative of popular government and Republican simplicity, and however much the prejudice of education may have biased their minds against each other in a national point of view, a mutual friendly feeling is thus engendered, which enables each to view more charitably the imaginary or real faults of each others' political and social organizations.

Nor is this all. The good seeds of amity and friendship thus sown, will ere long ripen and produce an abundant harvest, for man will learn this important truth, that in whatever clime or country the lot of his fellow man may be cast, however different may be their system of political and religious faith, still they are brothers; and ere long may we see the ushering in of that prophetic period, so beautifully expressed by the inspired penman, when "Nation shall not lift up sword against Nation; neither shall they learn war any more. For he has made of one blood all the Nations of men to dwell on the face of the earth."

Again, if the above remarks are true in a national point of view, they will hold equally true, to a certain extent, in regard to State and even county fairs, and especially so in a new, and at the present time rapidly populating county like this, festivals of this kind are of incal-

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culable benefit. An opportunity is thus presented of cultivating an acquaintance with those who have emigrated from distant portions of the country and settled among us, as well as a time of relaxation from that incessant toil incident to the season.

I have long entertained the opinion that our farmers and laboring class generally, do not have sufficient holidays, in which the whole population, old and young, men and women, the learned and the unlearned, the laborer of the hand as well as the head, may all unite.

When I say holidays, I mean *intellectual* treats, where the mind can become both amused and instructed. Constituted as we are, by an all wise Providence, a change of occupation, of employment, of place as well as of air, is essentially necessary to our social and moral well being, and to our health and happiness generally. Men will have relaxation from the hard, unbending, unceasing labors of the farm and workshops. They will have a day "when toil remitting lends its turn to play." If rational amusements are at hand, they will be gladly accepted. If not, then the young, the inexperienced, the gay and volatile will be drawn off to scenes far less improving than what we are permitted to witness on occasions of this kind. It is an old and trite remark, "the bow that is always bent will sometimes break"—and equally true is the old saying, "all work and no play makes Jack a dull boy." There is sound philosophy as well as common sense in these remarks, and it behooves those who would give a right direction to public sentiment, and elevate the standard of morals in our country, to see that sufficient and suitable holidays, or days of amusement, are provided, so that our youth of both sexes in particular, and all classes, may have such days for amusement, as shall not injure their morals, degrade their intellect, or impair their physical organizations. There is an important consideration in relation to agricultural advancement, which seems to be as little understood as it is appreciated by the farmer. I allude to the want of a more thorough knowledge universally among the farmers of those sciences, which are so intimately connected with their occupation, and on which, if my views are correct, their success in a great measure depends. Depend upon it, my hearers, our farmers as a class, are not sufficiently educated. I am far from intending in this remark, to convey the idea that they are deficient in general intelligence, and also, those branches of common school education requisite to perform the ordinary business transactions of

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life; no, far from it. For I am proud to say, that so far as a knowledge of men and things, and also our own political economy is concerned, our farmers as a body are not inferior to any other class.

I make bold to take this broad ground, without fear of successful opposition; that the farmer should be the best and most thoroughly educated man we have, for this one reason alone if for no other, viz.: It is through his efforts since the days of miracles have passed, that the imperative demands of hunger are satisfied. It is in and through the skill and energy of the farmer, that the tear of hunger is wiped from the face of the despairing widow and helpless orphan, and the smile of joy and gladness to again light up those sunken eyes, and smooth those furrowed cheeks, caused by extreme hunger and destitution.

I am aware that I tread on delicate ground in taking the position I have; but if my premises are sound they have nothing to fear from investigation, and if false they are the easier controverted. Permit me to ask, of what earthly use can a knowledge of the sciences of Geology, Mineralogy, Chemistry, &c., be to the Lawyer or to the Divine, in discharging the duties of their profession? I cannot for the life of me perceive any, and I doubt much whether any can be pointed out. As a matter of personal gratification, doubtless, the pleasures of every one, even the most humble mechanic, would be greatly enhanced by being schooled in those sciences; but to the farmer, in prosecuting his business, it is almost indispensable; as it aids him in demonstrating the different kinds of minerals of which his soil is composed, the soil to which the different kinds of plants and vegetables are best adapted, the best kind of manure to be used in continuing a proper equilibrium in his soils, &c., &c. It is a source of extreme regret that my knowledge of this subject is too limited, and the time allotted to this address too short, to give such a disquisition of the various applications of these sciences to practical, every-day farming, as their importance demands. Hence I am compelled to content myself by merely throwing out these hints, hoping that each and every farmer now present will take the matter into serious consideration, and as the long winter evenings are approaching, to supply himself and family with suitable books, and take my word for it, the spring will open upon you, a wiser, a healthier and a happier man.

That it has for a l

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the country to make the different professions the recipients of scientific attainments, to the almost total exclusion of the farmer, I appeal to the experience of every individual who has arrived at middle age, in this assembly. How often have circumstances like the following come under your own observation: Farmer A. has a family of four or five boys, and as they approach manhood, and he by dint of years of toil and economy has become more independent in purse, and perhaps too a little more aristocratic in feeling, selects one from their number and sends him to college. And I was at the point of saying that the selection of the college favorite was not always made with reference to any peculiar brilliancy of mind which the boy possessed, but too often the mantle falls on those boys, who from obtuseness of intellect are incapable of learning to plow a straight furrow; or from want of physical energy are incapacitated to follow the plow to the profit of the farmer. And when the other boys have murmured at the seeming injustice and partiality of their father, all their complaints have been silenced by the following, or a similar reply from the parent: Why, my dear children, have you not observed that farming was not natural to your brother; he seems to have a mind which soars entirely above it. Hence I design to make a lawyer, or a doctor, or a minister of him, and it is therefore highly necessary for him to go to school and acquire an education; and as I design to make nothing but farmers of the rest of you, therefore but little learning is required. Some may accuse me of overdrawing the picture, but let me assure all such, that it is justly drawn and literally true. Others may accuse me of envy, and to such I would say, Heaven forbid that I should make these remarks through a spirit of envy or jealousy. With suitable reverence it has ever been my aim to respect the ministerial office of the divine, and also to treat with all merited respect the various professions of our country. In all candor and sincerity, I would therefore say, that my sole object and aim is to combat a false and erroneous custom, which has unhappily too long been practiced among our people.

To say that professional men were unnecessary, and uncalled for, would be as unjust as to say that the shoemaker was not necessary. And to say also that they need not be liberally educated, would be equally unjust. I care not how long or how often they may have drunk at the fountains of science; I fear not their deep quaffing at the Pyren-

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ian springs; it will do them no harm, neither will the public interest suffer from it. But in justice to themselves, and to posterity, let farmers no longer indulge the suicidal idea, that scientific, and even a classical education can be available only in professional callings. There is one point to which I wish to call the especial attention of each and every member of this society, and which is of the most vital importance. The point to which I allude was most forcibly and happily presented to you, in the last annual address before the society, by your present worthy President. I allude to the too frequent indulgence of a spirit of fault-finding, and by those too who present articles here for exhibition, at the award of the committees. Rest assured that such practices cannot result otherwise than disastrously to the peace and harmony of the society, and eventually must prove its entire dissolution. To say that mankind are all honest, or that they are entirely free from prejudice, and are also infallible in judgment, would be assuming more than the history of the world from its earliest ages of antiquity, and also our own everyday experience, would warrant. But to brand this society as a humbug, and for individuals to say, as has too often been the case, "that none but a few of the more wealthy members can obtain a premium," is as unjust and cruel towards the committees generally, as it is prejudicial to the best interests of the association. That there may be instances where committees indulge their prejudices too far, and sometimes stretch moral honesty, I am not disposed to deny. But this should not be charged upon the society generally, as their fault. It is an old adage, "every crow thinks its young whitest." Hence it is perfectly natural that any one who presents articles here for premiums, should place as high an estimate upon their merits as others possibly could.

If those who complain of the awards of the committees would take the trouble to attend the primary meetings of the Society, and assist in selecting suitable persons for the different viewing committees, they would thus, in a great measure relieve the officers of a most responsible and delicate trust, and perhaps have less cause to complain.

Fellow cititizens, members of the Shiawassee County Agricultural Society: The fifth anniversary of your Society is about to close, and the labors of another year. Whatever we have done, as well as what we have neglected to do, is now among the past. The impartial historian

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as he shall chronicle the events of the past year, will do us justice if we have done aught to elevate the condition of labor,—to make farming more scientific and profitable—to make our county more productive and bountiful; and thus to make man more useful and happy.

With pride and pleasure, all must behold the vast improvement made in the display, in every department on the present occasion, over any of its predecessors. And pre-eminently high in the list of improvements, stands the department allotted to our ladies. The taste displayed in the arrangement of articles, as well as the number and variety of the same, reflects on them the highest credit both for skill and enterprise, and entitles them to our warmest thanks. Our people have every inducement to make an effort to excel, in every branch of industry. Look abroad over our entire country, yea, look more immediately about you. Truly may we say, in the language of the Royal Psalmist of Israel, "that our lines are cast in pleasant places, and a goodly heritage is ours." We possess a county unrivalled in natural resources, embracing almost every variety of soil, and timber indigenous to this climate. A beautiful river, which in its meanderings, drains our entire county, from its southeastern-most point, to its north western extremity; affording in addition to the lovely and enchanting scenery which every where adorns its banks, sufficient hydraulic power for all of our mechanical and manufacturing interests, both for the present and in prospective. Let us one and all, try to improve to the best of our abilities, this "goodly heritage" which "the Great giver of every good and perfect gift" has so bountifully bestowed upon us; and

> "So live, that when thy summons comes to join
> The innumerable caravan, that moves,
> To that mysterious realm, where each shall take
> His chamber in the silent halls of death,
> Thou go not like the quarry slave at night,
> Scourged by his dungeon; but sustained and soothed
> By an unfaltering trust, approach thy grave,
> Like one who wraps the drapery of his couch
> About him, and lies down to pleasant dreams."

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VAN BUREN COUNTY.

To J. C. HOLMES, ESQ., *Sec'y Mich. State Agricultural Society:*

SIR—Our society held its fourth annual fair at Paw Paw the 9th and 10th days of October, 1854. About $350 was appropriated for premiums. To increase the funds of the society, all persons not members of the society were charged one shilling admittance to the fair. This was the first time we have charged for admission. The exhibition was larger and better than any other we have ever held. The display of cattle was fine, consisting in part of some fine Durhams and Devons. Among the swine were some fine specimens of Suffolk. The poultry consisted of Shanghais of two or three varieties, Brahma Pootras, Chittagongs, Hong Kongs, &c. A spirited plowing match was held the first day of the fair. The principal officers of the society elected are: Joseph Gilman, President; Elisha Durkee, Treasurer; Wm. H. Harrison, Secretary; and Edwin Barnum, Archibald Stewart, Robert Morrison, Thomas Conklin, and Eaton Branch, with the President, Secretary and Treasurer, are the Executive Committee. The next fair of the society will be held at the village of Lawrence.

Yours, respectfully,

WM. H. HARRISON,
Secretary.

REPORTS OF COMMITTEES AND PREMIUMS AWARDED.

PLOWING MATCH.

Your committee on plowing beg leave to make the following report: Five teams competed for the prizes, viz:

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No. 2. C. G. George, 2 horse team, Ford Orr, plowman.
No. 5. N. P. Conger, " " H. Blade, "
No. 1. A. S. Downing, 2 horse " W. Slade, "
No. 4. W. Curtis, " " W. Curtis, "
No. 3. T. Blade, " " T. Blade, "

The plows entered were four Curtis plows and one Eagle plow. The plowing was very perfect, and showed skill and experience on the part of the plowmen. All the teams performed their labor in the prescribed time, viz: ¼ acre in one hour. Your committee took into consideration the depth of plowing and the perfect manner the sod was turned over, and awarded the first prize ($3 00) to (C. G. George) No. 2, as marked out upon the ground, and the 2d premium ($2 00) to (N. P. Conger) No. 5. Your committee would further report that No. 1 (Downing's team, W. Slade, plowman,) was plowed in a very perfect and workmanlike manner, but the plow was not run a sufficient depth to complete the perfect covering of the sod.

Committee.—H. Mather, F. C. Annable, N. M. Pugsley, Peter Harwick.

HORSES—(NO FOREIGN STOCK ENTERED).

Best full blood stallion 3 years old, Elisha Durkee,	$3	00
2d best " " 9 " Enoch Southwell,	2	00
No other full bloods on the ground.		
Best grade stallion, 3 years, Jno. Campbell,	$2	00
2d best " 3 " C. G. George,	1	50
Best less than 3 years, Ashbel Herron,	1	50
" common stallion 3 years old or over, Jno. Southard,	1	50
2d best " 3 " " Tho's Clark,	1	50
Best " 2 " (no competition,) Holland Clark,	1	50
" " 1 " Thomas Conklin,	1	00
2d best " 1 " Samuel Lull,		75
Best colt under 1 year, Jno. Southard,	1	00
2d " " 1 " Tho's Conklin,		75
Best brood mare, John A. Ranney,	2	00
2d best " Richard Hutchins,	1	50
Best mare 2 years old, Jno. A. Ranney,	1	50
2d " 2 " Richard Hutchins,	1	50

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Best mare 1 year old, Henry Barnum,	$1 25
2d " 1 " Rob't Orr,	75
Best mare colt under 1 year, J. A. Ranney,	1 00
2d best " " 1 " Holland Clark,	75
Best single horse, 5 years, Jno. Campbell,	2 00
" " 4 " Elisha Durkee,	2 00
2d best " 4 " John Deming,	1 50
Best carriage horses 4 " A. T. Norton,	3 00
" " 5 " Jno. Smolk,	3 00
2d best " 5 " Jno. B. Olds,	2 00
Best draught horses 5 years old, Henry Wilson,	3 00
2d best " " " Dolphin Morris,	2 00
Best matched 3 years old, R. D. Guernsey,	2 50
" " 2 " Wm. Markillie,	2 00
2d best " 2 " Eaton Branch,	1 50

RECOMMENDED FOR DISCRETIONARY PREMIUMS.

Best pair draught horses, 5 years old or under, Harmon Harwick, $3 00

The committee believe that there is a great improvement made in this county on horses of all kinds. We do think that the horses that have been exhibited at this annual fair have excelled in goodness and quality one quarter, of any other fair that has ever been held in this county.

THOS. CONKLIN,
Chairman.

CATTLE.—(NO FOREIGN STOCK ENTERED.)

Best working oxen, 5 years old, Orrin Sisson,	$2 00
2d best " " " Morgan L. Fitch,	1 50
Best working oxen, 4 years old, H. N. Taylor,	1 75
2d best " " " N. M. Pugsley,	1 25
Best 3 years old steers, John Campbell,	1 50
2d best 3 years old steers, John Lyle, Sen.,	1 00
Best 2 years old steers, Benoni Hall,	1 00
2d best 2 years old steers, N. M. Pugsley,	75
Best 1 year old steers, Robert Morrison,	75
2d best 1 year old steers, Richard Hutchins,	50

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Best single steer, 2 years old, John Campbell,	$0 50
Best bull, 5 years old or over, C. P. Sheldon,	1 00
" " 3 years old, Reuben L. Clark,	1 00
" " 2 years old, Elias Harmon,	75
2d best bull 2 years old, John Campbell,	50
Best bull 1 year old, Louis Labidie,	50
Best bull calf ¾ Devon, Eaton Branch,	50
2d best bull calf, grade durham and devon, Silas Engle,	25
Best cow, 5 years old or over, "Beauty," Samuel Haydon,	1 00
2d best cow, 5 years old or over, Reuben I. Clark,	75
Best cow, 3 years old, D. H. Manly,	1 00
Best 2 years old heifer, Orrin Sisson,	75
2d best 2 years old heifer, " "	50
Best 1 year old heifer, devon, Walter Durkee,	50
2d best 1 year old heifer, devon, John Campbell,	25
Best heifer calf, H. McNeil,	50

There was a good collection of stock of all classes, and the committee were sorry that there were not more than two premiums awarded on one class. But the committee do recommend a discretionary premium to the following members:

2 yoke of 4 year olds, (No. 28,) Oliver Warner,	$2 00
And 2 yoke of 4 year olds, (No. 8,) Joseph Bangs,	1 00

Committee.—Orrin Sisson, A. T. Stevens, Albert Wildey.

SHEEP.

The committee on sheep report that the number of sheep on exhibition was small, though about as many as last year, yet not as many of good quality as might well have been expected, for the numerous flocks of good sheep now known to be owned within the county.

After a careful examination of those presented, they have awarded premiums as follows:

Full bloods—best buck, No. 4, M. L. Fitch,	$3 00
2d best buck, No. 31, John Lyle, Jr.,	2 00
Grades—best 2 ewes, (no competition,) No. 4, M. L. Fitch,	2 00
Best 3 lambs, No. 4, M. L. Fitch,	2 00
2d best 3 lambs, No. 31, John Lyle, Jr.,	1 50

Committee.—M. L. Fitch, C. G. George, H. Barnum.

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SWINE.

Best boar, Suffolk and Leicester, A. F. Moon,..... 2 00
2d best " " " Isaac Doughty,..... 1 50
Best sow, Samuel Graham,..... 2 00
2d best sow, Samuel Haydon,..... 1 50
Best pen of 5 pigs, Samuel Haydon,..... 2 00
The 2 Suffolk pigs, No. 26, R. D. Guernsey,..... Trans. and 1 00

The committee do not hesitate to say they are superior to any thing they have seen of the kind exhibited in the county, and recommend a premium.

Three pigs, No. 115, B. G. & E. Buel,..... $2 00
Full blood Suffolk, owned out of the county.

Your committee are unanimous in the opinion that they would be well worthy of a premium, did the regulations of the society permit it. They do not hesitate to recommend to the farmers of Van Buren county the above stock of hogs as well worthy their attention. They are the very finest of the swine family—try them.

Committee—Allen Rice, A. S. Downing, J. Andrews.

POULTRY.

Pair of geese, Samuel Haydon,..... $ 25
" buff Shanghais, improved fowls, Chas. Selleck,..... 50
" Bramah Pootras, Henry Barnum,..... 25

DISCRETIONARY PREMIUMS RECOMMENDED.

No. 104. White Shanghais, Charles Selleck,..... $ 25
" Chittagongs, " 25
No. 56. Shanghais, Elisha Durkee,..... 25
" 79. " Walter Durkee,..... 25
" 93. " John Sherman,..... 25
" " Hong Kongs, " 25
" " Chittagongs, " 25
" " Bramah Pootras, " 25
" " White Shanghais, " 25
" 97 " John Abrams, ... 25
" " Pair pea fowls, " 25

Inasmuch as we have cultivated the pure Asiatic fowls, and believing

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them to be the best for the farmer, we would recommend them to the public generally. And furthermore, that hereafter premiums be awarded to the different varieties of Asiatic fowls.

Committee—H. Barnum, A. F. Moon, R. B. Lane.

FRUIT.

Best and greatest variety of winter apples, John Lyle, Jr.	$1 00
" dozen winter apples, Urial C. Lee,	50
" " (entered as winter apples) fall apples, M. L. Fitch,	50
" ½ doz. stems of grapes, David Woodman,	25
Recommended—Pears, U. C. Lee,	25
Peaches, O. Church,	25

Committee—George Smith, Eaton Branch.

VEGETABLES.

Best ½ bushel wheat, (Soules) Isaac Doughty,	$ 50
" " corn, D. H. Manly,	50
" ¼ " beans, Michael Leighty,	50
" " " onions, "	25
" dozen ruta baga, Wm. Prater,	25
" " field beets, M. Leighty,	25
" " " carrots, Samuel Hoppin,	25
" ½ dozen cabbages, Allen Rice,	25
" " " garden beets, Isaac Doughty,	25
" " " parsneps, Allen Rice,	25
" 3 squashes, A. B. Copeland,	25
" " pumpkins, James Harris,	25
" " water melons, Samuel Hoppin,	25
" sample red peppers, M. Leighty,	25

Having gone through with examining vegetables, we would recommend to your honorable board a discretionary premium on a sample of timothy seed, No. 18, M. Leighty, 25

Also, ruta baga, beet, and mangel wurtzel seeds to No. 103, W. Prater, 25

Committee—Michael Leighty, H. W. Rhodes, Samuel Haydon.

MANUFACTURES.—CLASS I.

This class consisted of lumber, shingles, &c. Nothing entered, and the committee made no report.

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CLASS II.

Best lumber wagon, no competition but worthy a premium, C. Hawley, ... $2 00
" plow, N. P. Conger, ... 1 00
" ox yoke, R. D. Guernsey, ... 50

RECOMMENDED FOR DISCRETIONARY PREMIUMS.

Three chairs, no competition but worthy premium, J. Palmer, .. 50
One fanning mill, no " " T. E. Van Brunt, ... 50
Specimens graining and painting, no competition, F. J. Lewis, .. 50
One plow, N. P. Conger, ... 50

Committee—N. P. Conger, Wm. Jennings, R. D. Guernsey.

CLASS III.

Best cheese, Wm. Fox, ... $1 00
2d best " Mrs. A. Warner, ... 75
3d best " R. M. Haynes, ... 50
Best butter, 22 lbs. made in June, O. Sisson, ... 1 00
2d " L. M. Haynes, ... 75
3d " O. Sisson, ... 50
Best honey, no competition, A. F. Moon, ... 1 00
2d " " " 75
Best maple sugar, no competition but worthy premium, John Lyle, Jr., ... 1 00
" flour, no competition but worthy premium, Leman Carly, .. 50

RECOMMENDED FOR DISCRETIONARY PREMIUMS.

Potato starch, R. J. Merrill, ... $ 25
Loaf of bread, Silas Engle, ... 25

Committee—Mrs. A. Warner, Wm. K. Butler, James B. Gliddon.

CLASS IV.

Best fulled cloth, Mrs. B. Hall, ... $1 00
" rag carpet, Miss Helen Annable, ... 1 00
2d best " J. B. Gliddon, ... 50
Best woolen stockings, Mrs. F. C. Annable, ... 50

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RECOMMENDED FOR DISCRETIONARY PREMIUMS.

Piece of domestic tweeds, Mrs. W. K. Butler, ... $ 50

Committee—John Abrams, Jr., Mrs. W. K. Butler, Mrs. Wm. Lee, Mrs. N. H. Bardwell.

CLASS V.

Best quilt, Miss Kate Warner,	$1 50
2d " Mrs. Eliza Hall,	1 25
Best counterpane, Jared Palmer,	1 50
2d " Mrs. C. D. Grimes,	1 25
Best painting, Francis J. Lewis,	25
" fine needle work, Mrs. E. Smith,	25
" flowers, Decatur Downing,	25

RECOMMENDED FOR DISCRETIONARY PREMIUMS.

2d best fine needle work, D. Downing,	$0 25
" flowers, R. J. Merrill,	25
Knit tidy, Mrs. C. D. Grimes,	25
2d best " John Abrams,	25
Lamp mat, Mrs. Edmund Smith,	25
2d best lamp mat, No. 78, not entered,	25

DISCRETIONARY PREMIUMS RECOMMENDED ON ARTICLES WITH NO COMPETITION.

Embroidered shoes, Mrs. O. W. Mather,	$0 25
Rice basket, Miss Eliza Downing,	25
Book mark, Miss Lelia Grimes,	25
Hair wristlets, Ashbel Herron,	25

These articles are of finest quality, and the workmanship deserves the respect of all that behold. We feel to encourage the ladies to be industrious and accomplish a work with their own hands.

Committee—Mrs. J. H. Simmons, Mrs. A. Stewart, Mrs. J. Gilman.

OFFICERS ELECTED AT THE ANNUAL MEETING.

President—Joseph Gilman.

Treasurer—Elisha Durkee.

Secretary—Wm. H. Harrison.

Executive Committee—Robert Morrison, Archibald Stewart, Thomas Conklin, Edwin Barnum, Eaton Branch.

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The constitution was amended so that any person may become a member of the society by paying fifty cents per annum.

The Executive Committee of the Van Buren Agricultural Society will meet at Lawrence, on Friday, Oct. 27, at 1 o'clock P. M., to discuss matters in relation to the next fair. Members of the society are invited to be present and take part in the discussions.

W. H. HARRISON,
Secretary.

REPORT

On Farms and Field Crops for the year 1854, *by the Executive Committee of the Van Buren County Agricultural Society.*

STATEMENTS—FIELD CROPS.—WHEAT.

I hereby certify that I have grown the past year, 175 bushels of good merchantable wheat from five acres of land. Soil, a rich, deep black muck, and gravel—first crop—plowed once with shovel plow, and sowed the 15th of September. The fence enclosing the wheat stands on the five acres.

(Signed) WM. LYLE.

I hereby certify that I have harvested the past year, from ten acres of land, 301 bushels of good merchantable wheat. Soil, black sand; land plowed twice, and sowed September 15th. Fence stands on the ten acres.

OATS.

I also certify that I raised 42 bushels of oats from one acre of the same kind of land.

(Signed) JOHN LYLE.

I hereby certify that the acre of wheat given in by me was a gravelly loam; oak timbered; first crop; no manure; the amount, 28 bushels.

(Signed) N. M. PUGSLEY.

CORN.

The undersigned states that he raised last summer, from 13½ acres of ground, 400 bushels of yellow dent corn. Average yield, 30 bushels

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to the acre. Best acre of the same, 40 bushels. Soil, white oak openings, sandy, with a small portion of clay. Field situated in south east corner of section sixteen, LaFayette—surrounded on south and east sides by woods, on north and west sides by marshes. Planted from 9th to 12th of May. 4¼ feet apart were the hills from each other, and not more than three stalks in each hill. Went through with cultivator once in row each way, then hoed it well, then finished by going through with shovel plow once in a row, only one way. Sept. 12th to 20th, cut up the corn and put in stacks, 72 hills in each stack. Cost of raising crop, about $60. Value of crop including corn fodder, $240. This was the fourth crop raised on the land—two first crops wheat, last two, corn—no manure ever used.

WM. H. HARRISON.

HAY.

A. S. Brown, of Columbia, stated that he raised 7,800 lbs. of timothy and red-top hay from one acre of ground; and Orrin Sisson 5,274 lbs. clover, timothy and red-top from one acre.

From the foregoing statements, the committee decided to award the following premiums:

Best acre of wheat, 35 bushels, Wm. Lyle,	$3 00
2d best acre of wheat, 30 bushels, John Lyle,	2 00
3d " " " 28 " N. M. Pugsley,	1 00
4th " " oats, 42 " John Lyle,	1 00
Best acre of corn, 40 bushels, Wm. H. Harrison,	3 00
" " of hay, timothy and red-top, 7,800 lbs., A. S. Brown,	2 00
" " of hay, clover, timothy and red-top, 5,274 lbs., Orrin Sisson,	2 00

FARMS.

To the President of the Van Buren County Agricultural Society:

The committee to whom was assigned the viewing of farms have discharged the duty devolved upon them by virtue of their appointment, and beg leave respectfully to report—

That six valuable and highly cultivated farms were thrown before them to compete for the prizes offered by the Society for premiums. Of these, three belong to the first class, containing 80 acres or over of improved land, and three to the second class, numbering between 40

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and 80 acres under cultivation. The competitors for the prizes of the first class were Nathaniel M. Pugsley, and Henry Wilson, of LaFayette, and Wm. Markillie, of Almena. The farm of Mr. Pugsley is situated about one and a half miles north west of the village of Paw Paw, and contains 85 acres of improved land, under a good state of cultivation. The timber is what is termed oak openings,—the soil varying from light sand to a heavy, gravelly loam, resting on a stiff subsoil, and is well adapted to the growing of grass and all kinds of grain grown in this State. On his premises are 75 apple trees and 50 other fruit trees; a small, but comfortable frame house, a large and well finished barn, with grainary, sheds, and other out buildings for the accommodation of the farm.

According to Mr. Pugsley's farm report, he has raised the past year, 600 bushels of wheat, 560 bushels of corn, 100 bushels of potatoes, 12 tons of hay, and 35 dollars worth of fruit, and has made 540 lbs. of butter; which, at the present market price, amount to the sum of $1,552,00, from which, deduct $450,00, the cost of producing the same, and a balance of $1,102 nett profit remains.

Mr. P. keeps on his farm 2 horses, 12 head of cattle, 86 sheep, 20 hogs and 40 hens. He has used on his farm, in raising the above crops, 100 loads of manure and 1200 lbs. of plaster. His fences are in good order, and his farm very clear from noxious weeds.

The farm of Henry Wilson is situated in the township of LaFayette, three miles west of Paw Paw, on the road to Lawrence, and contains 80 acres of choice, well cultivated oak opening land, with a mixture of clay, resting on a heavy subsoil; rendering it very productive in the hands of its present owner. On his farm are 100 apple trees, 45 other fruit trees, a log house and a good frame barn, with no out-houses. His farm has produced the past year, 276 bushels of wheat, 1,000 bushels of corn, 47 bushels of oats, 100 bushels of potatoes, $10 worth of fruit, and has made 350 lbs. of butter; amounting in all to $1,173,00, from which deduct $336,00, the expense of producing the above, and $807,-00 remains as the clear profit.

Mr. Wilson keeps on his farm 2 horses, 4 head of cattle, 20 sheep, 10 swine, and 40 hens. He has used on his farm 100 loads of barn-yard manure, but no plaster. His premises are enclosed with a huge and mammoth rail fence, that bids defiance to the most unruly ox or

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horse that ever infested this, or any other State; and your committee would earnestly recommend the farmers of this county to learn a valuable lesson from Mr. W. on the subject of building rail fence.

The farm of D. Abbott is located in the south west corner of LaFayette, and contains 90 acres of choice land; 40 of which is under the best state of cultivation of any farm that has come under our notice. The soil is a deep, black loam, in the heavy timber, and is extensively rich in all the elements of production. On his farm are 75 choice, well selected, and well cultivated apple trees, 300 other fruit trees, consisting of peach, pear, plum, cherries, &c., of the choicest varieties, yielding an abundance of fruit, both for sale and home consumption. He has a new and elegant frame house, well adapted for a farmer, and a good frame barn. His fences were in good repair, and the corners entirely free from noxious weeds, briars and brush. His statistics represent his farm to have produced the past year 190 bushels of wheat, 150 of corn, 100 of oats, 40 of potatoes, 16 tons of hay, $90 worth of fruit, and 360 lbs. of butter, footing up the bill of $854, from which deduct $300, the cost of producing the same, and $554 remains as profit.

His stock consists of 4 horses, 5 cattle, 15 swine and 30 hens. He has applied to his farm 100 loads of barn-yard manure, but no plaster. Your committee are unanimous in the opinion that Mr. A.'s farm is the freest from noxious weeds of all kinds, and under the best cultivation of any farm in the county.

Your committee also visited the farm of Gilbert Conkling, situated in Hartford, in the midst of a dense forest, and one of the richest portions of Michigan. He has an excellent farm, under a high state of cultivation, and sub-divided by a good fence, with corners free from weeds, and unsightly brush and briars. He has a log house, and the best frame barn your committee have seen in the county. He has 53 acres of rich land under improvement, richly rewarding him for his labor and toil. The produce of his farm the last year was 350 bushels of wheat, 675 bushels of corn, 150 of oats, 60 of potatoes, 15 tons of hay, $50 worth of fruit, 260 lbs. of butter, and 400 lbs. of cheese, amounting to $1,276; costing $737, leaving $614 profit.

Your committee, after mature deliberation, award to Nathaniel Pugsley in class 1st, the 1st prize of..... $5 00
Henry Wilson, 2d prize,..... 3 00

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and recommend discretionary premium to Wm. Markillie—copy of State Transactions.

CLASS 2D.—1st prize, D. Abbott, ... $3 00

2d prize, Gilbert Conklin, ... 2 00

Your committee are happy to state that wherever they went they were received with marked distinction of kindness and benevolence, and the good things of the land were spread before them, to which they failed not to do ample justice; all of which is respectfully submitted.

Committee.—E. Barnum, E. Branch, A. Stewart.

The following awards were not published at the proper time; they are now inserted in justice to persons omitted:

2d best single horse, 5 years old or over, labelled No. 1, should have been No. 118, Wilson Lee, ... $1 50

Best full blood cow, 4 years old or over, 9 years old, Devon, W. Durkee, ... 2 00

Best full blood heifer, under 4 years old, 3 years old, Durham, W. Durkee, ... 1 50

Best full blood bull, under 3 years old, 2 years old, Durham, Orrin Sisson, ... 1 50

2d best full blood bull, under 3 years old, 1 year old, Devon, Orrin Sisson, ... 1 00

The last four were not reported properly by the judges.

Loaf of bread, (reported but not entered,) Mrs. David Woodman, ... 25

Woolen comfortable, (blunder by the committee,) Mrs. David Woodman, ... 25

Book mark, Miss Olive Hawley, ... 25

The next annual fair of the Society will be held at Lawrence, on Thursday and Friday, the next week after the State fair. Premiums the same as last year except poultry. Hand-bills containing the particulars will be issued before the time.

By a resolution of the Executive Committee, it was ordered that these reports be published in the Paw Paw Free Press.

WM. H. HARRISON,
Secretary.

PAW PAW, Feb. 28th, 1855.

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WASHTENAW COUNTY.

J. C. HOLMES, ESQ., *Sec'y Michigan State Agricultural Society:*

DEAR SIR—In compliance with the constitution of the State Society, I herewith transmit to you an abstract of the proceedings of the Washtenaw County Agricultural and Horticultural Society for the year 1854.

The executive committee met in the city of Ann Arbor, December 8th, 1854, and the following, among other resolutions, was passed:

Resolved, That the next annual fair be held in the village of Dexter, *Provided*, The citizens of that place will pay into the treasury of the society, three hundred dollars, to assist in defraying the expenses of the fair.

In accordance with the above resolution, the money was raised and the fair held in that place, on the 10th, 11th and 12th of October, 1854.

This was the sixth annual exhibition of the society, and in view of all the circumstances, fully equalled any preceeding one, and from the indications afforded the society at this fair, the association has the greatest reason to hope for far greater prosperity than has hitherto attended it.

It would afford me great pleasure, were I able, to comply with your request, to give you a full history of the proceedings of a society formed some years since in this county, having the same end in view. But my efforts to find the records of the society, have proved unavailing. I hope they will be found and preserved with the records of the present organization.

The association was favored with an address by Hon. Mr. Lothrop, of Detroit. A resolution of thanks was passed with instructions to the secretary to request the favor of a copy for publication. In compliance

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with the instructions of the society, I made known to Mr. Lothrop, the desires of the society, but have not been able, as yet, to procure a copy of this excellent address for publication. It is a matter of regret that the society are not in possession of it, as it was listened to with marked attention and expressed desire that it might be spread out before the agriculturists of the county, and be put upon the records of the association.

No. of entries, 900.

TREASURER'S REPORT.

DR.

1854.			
Oct. 13.	To balance brought from old account,	$278	16
"	" cash received at fair,	777	00
1855.			
Jan. 4.	To cash of committee of arrangements,	90	00
Feb. 3.	" cash of county treasurer,	250	00
	Total,	$1,395	61

There is still something in the hands of the committee at Dexter—$100, or over.

CR.

By amount of premiums paid to date,	$989	70
Balance in treasury,	$405	46

L. DAVIS, *Sec'y.*

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